APR 2 1932

# HYGEIA

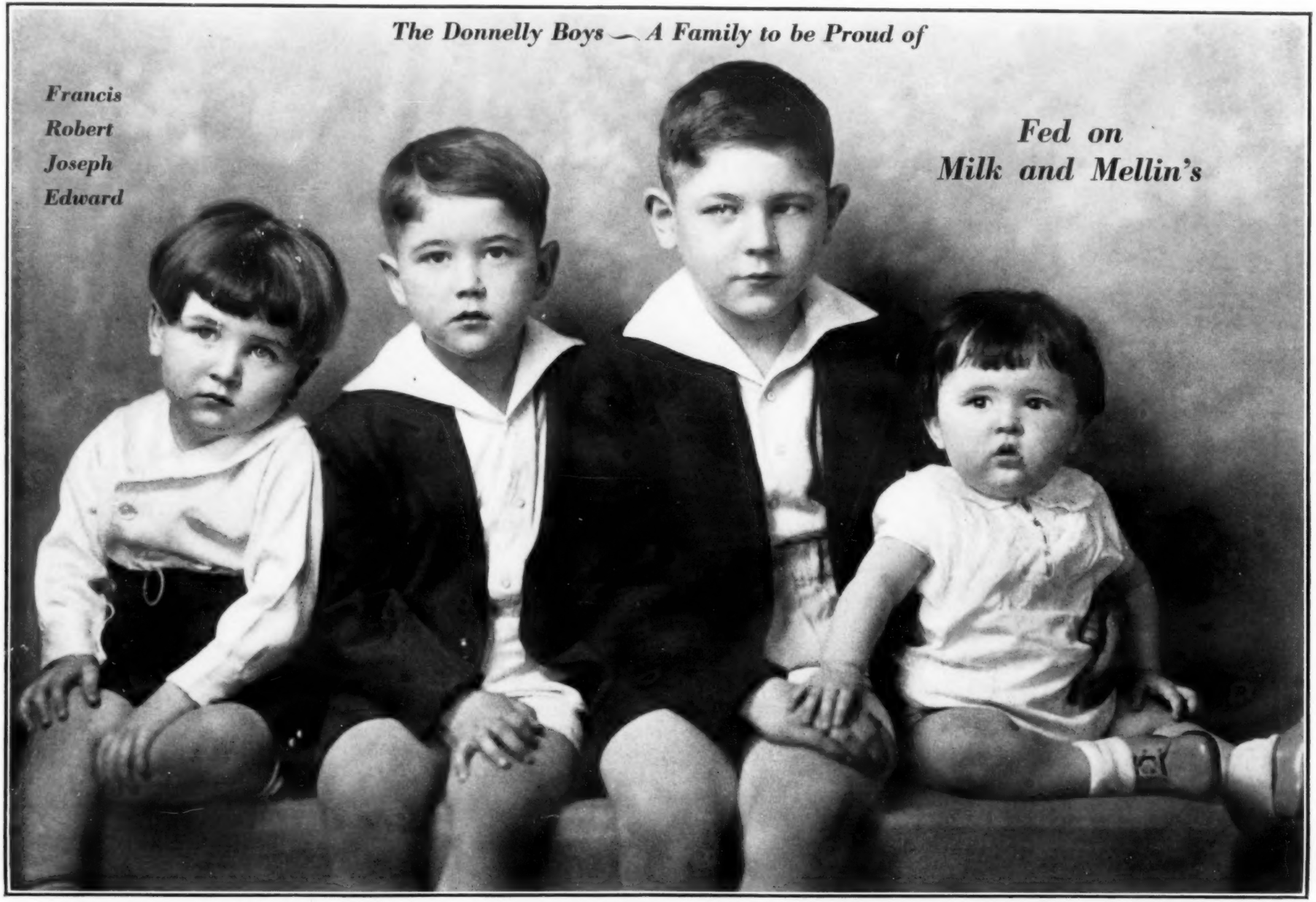
## The HEALTH MAGAZINE

PUBLISHED BY THE AMERICAN MEDICAL ASSOCIATION

May 1932 25 Cents

Food The Ultraviolet Crime Detector Noise

HYGEIA, the Health Magazine, is published monthly by the American Medical Association, 535 North Dearborn Street, Chicago, Ill. Yearly subscription price, $3.00; for foreign postage add 50 cents. Volume 10, Number 3. Entered as second-class matter March 2, 1922, at the postoffice at Chicago, Ill., under the Acts of March 3, 1879. Acceptance for mailing at special rate of postage provided for in Section 1,103 Act of October 3, 1917, authorized March 21, 1923.


MELLIN'S FOOD—Made from wheat flour, wheat bran, malted barley and bicarbonate of potassium—consisting essentially of maltose, dextrins, proteins and mineral salts.

# HYGEIA
## THE HEALTH MAGAZINE

*Published by the American Medical Association*
*Edited by Morris Fishbein, M.D.*

VOLUME 10 — MAY, 1932 — NUMBER 5


# TABLE OF CONTENTS


COVER DESIGN
*Andrew Benson*

| | PAGE |
|---|---|
| ANIMAL EXPERIMENTATION | 400 |
| FROM BREAST TO BOTTLE<br>*Joseph H. Marcus* | 401 |
| THE FAMILY PHYSICIAN AS COUNSELOR TO THE TRUST OFFICER | 404 |
| PIONEERS OF MEDICINE—PHILIPPE PINEL<br>*Claude Lillingston* | 405 |
| FOODS—THEIR SELECTION AND PREPARATION<br>*E. M. Geraghty* | 408 |
| CORNELIA MOORE FREE DENTAL FOUNDATION<br>*E. J. Lamb* | 412 |
| HOW SCIENCE SOLVES CRIME—IV. THE ULTRAVIOLET CRIME DETECTOR<br>*Calvin Goddard* | 413 |
| LINCOLN AND THE DOCTORS—CHAPTER VI<br>*Milton H. Shutes* | 417 |
| THE DOCTOR—A POEM<br>*Adele de Leeuw* | 420 |
| WHO CAN MAKE THE MOST NOISE?<br>*J. F. Hammond* | 421 |
| NATIONAL CHILD HEALTH DAY | 422 |
| DIABETES—A CONTROLLABLE DISEASE<br>*Benjamin Jablons* | 423 |
| PREVIEWS OF THE OLYMPIC GAMES | 426 |
| SOME NEWLY DISCOVERED DISEASES OF THE BLOOD<br>*Robert A. Kilduffe* | 427 |
| HOME—A POEM<br>*Henrietta McLane* | 429 |
| THE WARDROBE OF THE PRESCHOOL CHILD<br>*Alice Lawton* | 430 |
| MOTHER'S DAY—1932 | 431 |
| NORMAN BAKER VS. THE AMERICAN MEDICAL ASSOCIATION<br>*Arthur J. Cramp* | 432 |
| WHAT TO DO WHEN A CHILD CHOKES<br>*E. W. Hagens* | 436 |
| HEALTH PROMOTION IN THE BELL TELEPHONE SYSTEM<br>*Leverett D. Bristol* | 438 |
| ASK THE CHICKEN<br>*E. R. Bryant* | 442 |
| HOW TO COMPUTE TOMMY'S DIET<br>*Frances Stern and Mary Pfaffmann* | 444 |
| CLEANLINESS BECOMES CONTAGIOUS<br>*Grace T. Hallock* | 448 |
| TRIALS AND JOYS OF LITTLE LIFE<br>*Belle Coates and Gretchen Donohue* | 450 |
| SNICKLES AND SNORTLES—CHAPTER II<br>*Nellie G. Herriman* | 451 |
| HEALTH AND THE SCHOOL | 455 |
| NEW BOOKS ON HEALTH | 459 |
| HEALTH PURSUITS IN PICTURES | 460 |
| QUESTIONS AND ANSWERS | 462 |


## *Contributors to This Issue*

DR. JOSEPH H. MARCUS simplifies the problems involved in weaning the baby. . . . DR. CLAUDE LILLINGSTON paints a word portrait of Philippe Pinel. . . . MISS E. M. GERAGHTY, consultant in foods and dietotherapy, contributes the first of a series of articles on foods.

COL. CALVIN GODDARD, continuing the series on crime detection, describes the ultraviolet crime detector. . . . DR. E. J. LAMB, a pediatrician, outlines the purposes of the Cornelia Moore Free Dental Foundation. . . . DR. MILTON H. SHUTES describes Lincoln's cordial relations with the doctors, many of whom figured prominently in his political and social life.

DR. J. F. HAMMOND, who discusses the effects of noise, is assistant editor of *The Journal of the American Medical Association*. . . . DR. BENJAMIN JABLONS, an eastern physician, tells how diabetes may be controlled by insulin, diet and skilled supervision.

DR. ROBERT A. KILDUFFE, who has contributed many articles on the blood and its diseases, discusses "Some Newly Discovered Diseases of the Blood" which have only recently been clearly described.

DR. ARTHUR J. CRAMP, director of the bureau of investigation of the American Medical Association, discusses the case of Norman Baker vs. the American Medical Association. . . . ALICE LAWTON, R. N., is secretary of the committee on health stations and preschool clinics of the Children's Welfare Federation of New York City.

DR. E. W. HAGENS specializes in otolaryngology. . . . DR. LEVERETT D. BRISTOL is health director of the American Telephone and Telegraph Company. . . . E. R. BRYANT, professor of biology at Muskingum College, writes a story containing a valuable lesson for housewives.

FRANCES STERN and MARY PFAFFMANN of the Boston Dispensary outline "Tommy's Diet." . . . GRACE T. HALLOCK of the Cleanliness Institute tells how cleanliness became contagious in a country school. . . . NELLIE G. HERRIMAN continues the adventures of Snickles and Snortles.


*Published monthly by the American Medical Association, 535 North Dearborn Street, Chicago. Subscription price $3 a year. Single copies 25 cents. Foreign subscriptions $3.50 a year.*


*Copyright, 1932, by the American Medical Association. All rights reserved.*

# Animal Experimentation

## *An Editorial*

THE MISGUIDED notions of persons of great wealth who have bequeathed vast sums of money to promote opposition to animal experimentation have stimulated new activity by those whose occupations demand that they urge this cause on legislators and on the public. The sudden awakening of these agitators after a long period of comparative quiet is, no doubt, due to the fuel added to their resources by these new bequests. A human being, about to pass into the Beyond, is an easy subject for sentimental appeals by fanatical and unreasoning opponents of scientific medicine.

Not long ago, Mr. H. L. Mencken wrote an exposé of the life and work of the executive secretaries employed by these bodies—sometimes themselves the originators and directors of organizations which seem to be established principally to give the executive secretary a job. In a hearing recently held before the United States Senate committee charged with legislation on this subject, evidence was brought forth indicating that one of the organizations now opposing animal experimentation is definitely of this character.

An indication of the way in which these antisocial propagandists attempt to discredit scientific medicine is a questionnaire now being circulated to the physicians of this country by a so-called National Antivivisection Society. The questions in this inquiry are so phrased as to permit easy misuse of the answers by the group issuing the questionnaire. The very premises on which the whole argument is based are such that mere acquiescence to the premises commits a physician to opposition to animal experimentation. Moreover, physicians are asked to guarantee that all biologic methods, such as the use of diphtheria toxin-antitoxin and toxoid, and the use of vaccination against smallpox and other diseases will be absolutely free from harm in every case. Because of the physiology of the human being and because of his body chemistry, and because no two human beings are exactly alike in their constitution and in their structure, it is impossible to guarantee anything in relation to the human body. It is possible to show that more than a million children have been given toxin-antitoxin in New York City without a single harmful result. It is possible to show that many millions of persons have been vaccinated against smallpox with vast benefit to the control of this disease, and with rare instances of harm through secondary infection. It is possible to prove absolutely that the world has been made safer and more healthful not only for human beings but also for the animals themselves through the use of animal experimentation. However, the antivivisectionist does not care for such evidence. He seeks only the rare accident that will make it possible for him to interfere with the progress of science and to extract still more shekels from the sentimentally minded patrons who support him.

Students of the propaganda put forth by the antivivisectionists, the antivaccinationists and all those who oppose modern science are able to produce incident after incident in which scientific literature has been misquoted, partially quoted or misinterpreted to promote the antis' cause. It is the pride of the medical profession that it invariably cleans its own house. It is the pride of science that it publishes facts in order that investigators and practitioners may have accurate judgment as to the value of any procedure. It is the habit of propagandists for antiscientific organizations, however, to pervert statistics, to eliminate statements unfavorable to their cause and even to misquote when that seems desirable for the ends they seek.

For more than a quarter of a century, leading educators and statesmen have recognized the value of animal experimentation for the good of all living beings and have despaired because so many human beings seem to be swayed by false propaganda. Year after year, physicians, chemists, biologists, sociologists, economists and statesmen have had to give freely of their time and their funds in order to meet the attacks of these propagandists before legislative bodies. If the sums necessary for this defense of science could have been applied still further to the saving of life, who knows what vast good might not have been accomplished.

# From Breast to Bottle

## *An Article on Weaning the Baby*

By

JOSEPH H. MARCUS

*A daily bottle after the second month.*

WEANING is derived from the Anglo-Saxon word "wenan," which means to accustom. Interpreted, it means getting a baby accustomed or reconciled to withdrawal from the mother's milk. The age at which weaning is practiced varies in different parts of the world. In ancient times maternal nursing continued for more than two years. In the Far East, children are kept on the breast for many years: in certain parts of China and Japan for five or six years; in the Caroline Islands for ten years. Among the Eskimos it is said that some children continue to suck at the mother's breast even at the age of 15 years. Under ordinary circumstances weaning should be commenced about the seventh or eighth month. Three months at the breast is necessary, six months desirable, nine months sufficient and twelve months entirely too long.

Even though baby is apparently thriving on breast milk, additional articles of food should be given at certain ages: cod liver oil and orange juice between 1 and 2 months, cereals at 5 or 6 months, and vegetables at 6 or 7 months. There is no particular advantage in continuing breast feeding after 9 months, for infants are liable to develop anemia on account of lack of iron in the milk, unless the diet is reinforced with green vegetables, egg yolk, cereals, beef juice or meats.

A good plan is to get the breast-fed baby accustomed to one bottle feed a day, preferably the afternoon feeding, after the second month. This procedure allows more freedom to the mother and encourages her to persevere with her nursing. It will also be a great help in indicating the precise artificial food that suits baby.

The infant should not be weaned during illness, and it is usually highly inadvisable to wean babies during very warm weather, because milk is more liable to be contaminated by germs during summer; moreover, the digestive capacity is lower when the outside temperature is high, frequently causing epidemic diarrhea. Weaning should be done gradually whenever possible, and this gradual method should be adhered to, unless contraindicated, in justice to both mother and child. Certain indications, however, make sudden weaning imperative: failure of milk supply; illness of the mother, either acute or chronic; and disease of the mammary gland. When the taking of breast milk is attended by symptoms of indigestion of sufficient import to cause continual failure of baby to gain in weight and when every other effort has been made to relieve this condition, weaning should be instituted.

In a worthy attempt to encourage breast feeding, extreme statements have been made, implying that mother's milk always agrees with her baby and that a baby who does not thrive satisfactorily at the breast will do worse on artificial

feeding. Such statements are not absolutely true; all human milk is not perfect.

If for some reason the baby has to be weaned suddenly, the mother may experience considerable discomfort in her breasts as a result of the secretion of the milk. The best methods in order to diminish the activity of the glands are to limit the intake of fluids by the mother; to promote free evacuation of the bowels by saline purgatives, such as citrate of magnesia or epsom salt; to apply a belladonna plaster or belladonna ointment to each breast, and to use a tight breast binder. If, in spite of these measures, the breasts become exceedingly painful, relief may be obtained by means of a breast pump or removal of some of the milk by hand.

### *Problems of Weaning in Difficult Cases*

Ordinarily the time consumed in weaning the baby completely is about four weeks. If the infant has had the benefit of one bottle daily from the second month and on, the task of weaning is comparatively simple by substituting a bottle for the breast every five days or one week. If, however, the infant has been kept on the breast exclusively up to the seventh or eighth month, certain obstacles will appear when weaning is attempted. The infant will not take the bottle if a breast is at his disposal, and the only way out of the difficulty is to deprive the baby of the breast and starve him into taking the bottle. This method exacts moral courage from mother and doctor. Continued coaxing is objectionable and forcing is worse, as it only prolongs the struggle. A stranger may be more successful in persuading such a baby to take the bottle. A strong-willed infant will often hold out from twenty-four to thirty-six hours, but at the expiration of this period of time the pangs of hunger are so keen that the infant surrenders and food will be accepted.

Only patience will ultimately conquer these stubborn little ones. In extreme cases, a few tube feedings may be necessary, and in rare instances it may be necessary to remove the baby to a hospital in order to wean him. Sometimes he may become fretful while being weaned and refuse food entirely for a day or more, but a little determination on the part of the mother and the cravings of hunger will soon set the child right. Occasionally in weaning, the baby refuses to suck milk from a bottle or to drink it from a cup or spoon, while at the same time he is eager for bread or other solid food. For such children, prepare for each meal a small portion of cereal or rice pudding or junket. After a day or two, add to each meal a little milk, reducing the amount of pudding or junket. Stir the whole together and feed from a spoon. Next day reduce the solid and increase the liquid, and so proceed until finally a taste for milk or its modifications is developed.

*Patience will conquer the stubborn child.*

At first for one breast feeding should be substituted a bottle that contains a modification of cow's milk, as nearly similar to mother's milk as possible. The infant is kept on this bottle formula of modified milk for five days or even a week, and should no disorders of digestion follow, another substitute bottle is given for the same period of time. This procedure is continued until all breast feedings are replaced by bottle feedings.

### *Breast Feeding May Be Undesirable*

At this time the quality of the mixture is increased by adding milk and decreasing the content of water and carbohydrate, until at the tenth or twelfth month the infant is taking undiluted cow's milk. At this period or a month or two later, the milk may be taken from a cup.

The only absolute denial for nursing the baby is open or active tuberculosis of the mother. For the sake of both mother and infant this is best. In addition the infant should be removed from contact with the mother. Latent or quiescent forms of tuberculosis require discriminating judgment, as each case presents an individual problem. The presence of a brief temporary illness is no reason for weaning, but a continued infectious illness such as typhoid fever renders maternal nursing impossible on account of the great strain imposed on the mother. Tumors or growths may or may not be a cause for depriving baby of his breast milk,

but involvement of the breast presents a definite indication for weaning.

Epilepsy and insanity in the mother must be regarded as individual problems. If the attacks are few and far between, the baby may be breast fed under supervision. If there is a possibility of the mother injuring her baby during a convulsion or while mentally unbalanced, immediate removal from the mother is urgent. It is to be remembered, however, that there is nothing in the milk of an insane mother that will harm or cause insanity in her child.

Debilitating diseases, such as anemia and kidney disease, are frequent reasons for putting baby on the bottle, as they may seriously interfere with the mother's recovery. On the other hand, many anemic women improve during nursing. In heart conditions if the heart is performing its work satisfactorily and the woman is eager to nurse her child, there is no sufficient reason in forbidding her from so doing. In abscess of the breast in which the pus is discharging through the nipple, the baby should be removed from this breast. The experience of many observers has failed to demonstrate any marked universal influence of menstruation or pregnancy on the quality of the milk, although the quantity is frequently lessened. In the case of cattle, it is well known that pregnancy improves the supply of milk.

In some types of mothers, especially those who are temperamental, emotional and poorly nourished, the supply of milk frequently becomes diminished during menstruation and pregnancy, and the infant often becomes colicky and develops a diarrhea. During menstruation temporary weaning is instituted, while during pregnancy permanent withdrawal of the breast is indicated in the neurotic, badly nourished mother. If syphilis is acquired after the birth of the baby, weaning is imperative. If the condition existed throughout pregnancy, it is a decided and urgent reason for nursing. Baby's reasons for discontinuing the breast are few and relate mostly to congenital malformations, especially harelip and cleft palate. A simple mechanical appliance devised by Dr. Foote for use in nursing by the baby with harelip is well worth using in an attempt to continue breast feeding.

With increasing knowledge of infant nutrition, the need for wet nursing has become progressively less. However, in certain conditions, especially in premature and very sick infants, the breast milk obtained from suitable wet nurses is of decided benefit. In some cities stations have been established that are distributing centers for breast milk, which is delivered to the home. If a wet nurse is brought into the home, her baby should accompany her. This will relieve her of worry concerning the welfare of her own infant, and such peace of mind is conducive to a more abundant supply of milk.

Many conditions exist under which it is urgent or desirable to express the milk from the breasts. At the earliest opportunity and at every occasion presented, the mother should acquaint herself with the technic of manual expression by manipulating her own breasts, so that when an emergency arises she will be master of the situation and not dependent on others. The old-fashioned breast pump is being relegated to the background as both ineffectual and painful. Electric and water-power breast pumps are obtainable, the best type being Abt's electric pump, which is especially valuable in hospital practice but can also be rented or purchased and used in the home. The technic of expressing breast milk by hand should be included in the mother's training to care for her baby. When properly performed it is effective, and the technic becomes simple after a little training coupled with patience. The underlying principle consists in emptying the milk sacs that hold the accumulated secretion. These sacs lie behind the nipples, so that mere pulling or squeezing of the nipple is insufficient. The proper procedure is to grasp the breast about 1½ or 2 inches from the nipple with the fingers below and the thumb above. Firm pressure is then made backward against the breast. Keeping the hand in this position the fingers and thumb are brought forcibly together. This motion should be repeated from sixty to ninety times per minute, during which the fingers should not slip forward. The milk is received in a sterilized glass or cup held in the other hand.

*The spoon for more solid foods.*

Underfeeding may result if either the quantity or the quality of the secreted milk is at fault, and it is relatively easy to tell when baby is

being underfed. Underfeeding may be diagnosed by a stationary or falling weight curve without gastro-intestinal disturbances. This is confirmed by test feedings. Immediate attention must be directed to the mother, and those procedures that will stimulate the breast to more efficient secretion should be carried out at once. When the milk supply is much too small and the weight curve falls rapidly, it becomes necessary to resort to complemental or mixed feeding.

If during the first few months baby obtains at least half of his nourishment from the breast it is not advisable to wean the infant.

Overfeeding occurs under two conditions, either with an excessive secretion from the breast glands or with a normal supply but with too frequent feedings. Baby rebels by regurgitating or vomiting part of the feeding after the nursing and by becoming uncomfortable and colicky. Generally the number of stools is increased. A peevish cry, a hot skin and sour breath frequently indicate indigestion—the pain of colic and the discomfort of indigestion being caused by fermentation of food.

While the breast milk temporarily relieves suffering, as does any other warm liquid, milk only adds to the already fermenting contents of the gastro-intestinal canal. Every nursing is soon followed by more pain until between crying and sucking, the infant's life is made miserable.

The colicky crying is a pronounced symptom and leads the mother to believe that baby is hungry, whereupon she adds insult to injury by giving more feedings and so accentuating the trouble. The treatment is the proper regulation of feeding, both by abridging the time of lying at the breast (preferably every four hours) and, if the breast milk is excessive, by removal of the residual amount, either by hand or by the breast pump.

---

# The Family Physician as Counselor to the Trust Officer

FOR A trust officer to walk into the home of the deceased to decide what should be done to the best advantage of the decedent's family is not only difficult but more than can be expected without the aid of some person closely related to the family. In such instances both the family and the trust officer have found the family doctor a helpful guide.

John H. Boushall writing in the *American Bankers Association Journal* knows from his own experience as trust officer the value of the doctor. He explains:

"The trust officer must find a way out of his dilemma, and fortunately it is not very far away. The family physician is the repository of a fund of information about the widow and each boy and girl, even if the boy is approaching sixty and the girl is in her early fifties. And though his training is medical his ministrations over the years have many times included words of comfort and consolation, words of seasoned judgment in the conduct of more than a course of tonics to regain strength and vigor. His eyes have seen, and his ears have heard more than the medical books lead young doctors to think is the limitation of medical ministration."

Nobody knows better than the family doctor the physical make-up of each member of the family, and nobody can advise more skilfully regarding the mental attitude of each one. As to the widow who has just come through a long period of anxiety and shock due to the illness and death of her husband, the friendly and knowing guidance of the family physician establishes her confidence in and assures cooperation with the trust officer. In dealing with younger members of the family, the doctor can better interpret their wishes than can a stranger. If a member of the family is somewhat neurotic or lacks physical strength, here again the doctor is a great aid. He not only knows the history of the case but can judge what financial course should be pursued. The trust officer who is willing to cooperate with a business-like doctor will be better able to serve the best interests of the trust beneficiaries.

# Pioneers of Medicine

## *Philippe Pinel*

*By*

*Claude Lillingston*

"THE insane asylums of today are not hospitals where the mentally ill are treated, but are sanatoria where they are kept," writes Dr. H. W. Haggard in "Devils, Drugs and Doctors." This quotation conveys a candid confession. It is, in effect, an admission that even in our own enlightened times we know next to nothing about mental disease. We shelter the insane; we house, feed and clothe them, but we seldom give them rational treatment. The reason for this is obvious; we know so little of the inner workings of the human mind.

Yet we are immeasurably in advance of our ancestors of a few generations ago in this matter. We, confessing our ignorance, tend the insane today with compassion if not with great skill. Our ancestors, convinced of the wickedness of the insane, of their being possessed by the devil, treated them with stupid cruelty. The worst that can befall a lunatic today—and it is quite bad enough—is to be deprived of his liberty. The lunatic of former days was starved, chained like a wild beast, flogged and otherwise tortured, in the crazy belief that the devil haunting him might, with luck, be expelled.

Throughout history the fate of the insane has varied greatly from century to century and with diverse religions and ethical standards, but it is doubtful that they were ever much worse off than in the latter part of the eighteenth century. They were lodged in dungeons by the hundreds, and the rattling of their chains struck terror into the hearts of the passers-by. Their attendants were in some cases ex-convicts, brutal men whose feelings had become blunted by the horrible surroundings in which they worked.

"Vice, crime, misfortune, infirmity, the most varied and revolting diseases, all were heaped together and treated alike. The buildings were untenable. Men crouched there covered with filth, in cells of stone, narrow, cold, dripping, without air or light and furnished only with a litter of straw, rarely renewed and soon infected, hideous lairs in which one would have hesitated to shut up the vilest animal. The insane, thrown into these sewers, were at the mercy of their keepers, and their keepers were malefactors from the prisons. The wretched patients were loaded with chains and tied with ropes like convicts. . . . The injustice of their treatment transported them with rage, despair and wrath, inflaming their deranged minds, drew from them night and day cries and howlings that rendered still more dreadful the clanking of their chains." These are Pariset's words, spoken over the grave of the great Frenchman who "struck the chains from the insane."

It was on this scene of utter misery that Philippe Pinel cast a kindly ray of light. He was the apostle of reasonableness as well as of human goodness. His philanthropy carried him far, largely because there was behind it all the time the support and driving force of logical reasoning. Had he been nothing more than a

soft-hearted creature, vaguely distressed by the sufferings of his fellow beings, we in our days would surely not have heard of him. In the picture we have inherited of "ce bon Monsieur Pinel" we are liable to miss his great intellectual qualities in our admiration of his transcendent goodness of heart.

The son of a doctor, Philippe Pinel was born on April 20, 1745, at Saint André-d'Alayrac in France, where his mother happened to be visiting her parents. Of a sunny temperament from early infancy, the child was at first educated under his mother's supervision. On her death, when he was 15 years old, his father put him under the tutorship of an educated clergyman in whose hands the boy made rapid progress. For some years it seemed that Philippe was destined to enter the Church; at the age of 17 he became a member of a clerical order, and though he did not pass through its various stages to the higher offices, he retained throughout life his religious outlook. At the age of 22 he went to Toulouse where he studied not only literature but also mathematics, natural science and medicine. This was an ambitious program, even for those days when some of these subjects were still comparatively simple. He was a hard worker, and one of his brothers who shared his modest bedroom has told how he would often awake to find Philippe, with elbows on the table and head between his hands, in the same posture in which he had bade him good night the evening before.

*Pinel orders the chains of the lunatics at the Salpètrière to be broken. (From the painting by Robert Fleury.)*

Early in 1774, Pinel moved to Montpellier, where he had greater scope for his activities and where his familiarity with Latin made him popular with the would-be authors of learned theses in that language. He had obtained a degree in medicine, but he did not prosper greatly as a medical practitioner in Montpellier. With our knowledge of his timid, sensitive, modest character, it is easy to understand why this was so. After three years of unsuccessful medical practice, Pinel left Montpellier so poor that he had to walk to get to Paris. Here his knowledge of mathematics stood him in good stead, and his teaching of this subject provided him with the necessary means for continuing his own studies in medicine. At this period Mesmer and mesmerism were much in fashion, but the young doctor from the provinces was not greatly impressed by this new cult.

The first fourteen years of his life in Paris were passed by Pinel in comparative obscurity. Perhaps this was all for the best. He certainly employed these years to good effect, filling his mind with the seeds that were to yield such valuable fruit later. Even before the outbreak of the Revolution, plans were on foot for a reform of the conditions under which the insane lived. The whirling events of the Revolution consigned these plans to the obscurity of their respective pigeonholes, but a chief had to be appointed to the Bicêtre Hospital in 1793, and the choice of the authorities fell on Pinel. In this large general hospital, Pinel found some 200 lunatics, 53 of them in chains.

He did not come new to his task, either in theory or in practice. But as far as the theories current at the time about the cause and treatment of insanity were concerned, he would doubtless have been better without them. An independent thinker, blending common sense with compassion, he proceeded to clean up these Augean stables. When he took office at the Bicêtre, it was possible for the curious, on payment of a few coins, to secure a sight of the chained lunatics, exhibited like animals in a menagerie. Pinel quickly realized that no improvement in the conditions under which these lunatics lived could be effected as long as they were chained, but at the suggestion that the chains be removed he was greeted by the protests of conventional officialdom: If he must needs play the fool, let his blood be on his own head. Officialdom washed its hands of all responsibility; the new director must surely himself need chaining.

To carry out such a daring innovation, Pinel had to secure the consent of the authorities to whom he submitted his plans for reform. Couthon, a member of the government then in power, consented to come and see for himself what was happening at the Bicêtre. Those were days when royalists were hiding from the Revolution in the darkest corners of Paris, and "ce bon Monsieur Pinel" was suspected of letting the goodness of his heart run away with him to such a monstrous pitch as to harbor royalist refugees in the Bicêtre under the guise of

insanity. So Couthon warned him that if enemies of the people were found among the patients, woe betide him. With this sinister intimation, Couthon hied himself to the Bicêtre on his tour of inspection. He stopped outside each ward, and when he left, he declared that the man who wished to unchain such animals must be a fool himself. But as soon as he had gone, a dozen patients were at once set free from their chains, and their violent agitation ceased forthwith.

The Reign of Terror rendered Pinel's task peculiarly difficult. He was a good Republican and had been present at the execution of Louis XVI, as a member of the National Guard. But his political liberality did not run away with his goodness of heart; Couthon's suspicions as to Pinel's disguising royalists as lunatics were doubtless quite well founded. One of the victims of the Terror, Condorcet, was for some time hidden by his good friend Pinel. At one time, feelings ran so high that Pinel was seized by an angry mob bent on lynching him; one would like to believe as true the story that the man who rescued him from this fate was one of those from whom he had literally struck the chains of insanity.

In May, 1795, Pinel left the Bicêtre to become the director of the Salpètrière in which he found more than 600 lunatics in a deplorable condition. Here, also, he made a clean sweep of the chains and other time-dishonored burdens under which the insane were suffering. He discontinued the heroic cold water immersions on account of the unnecessary shock they inflicted on the nervous system, substituting in their place tepid or warm baths. He had no blind faith in the wholesale bleeding practiced as a routine measure irrespective of the patient's needs. Empiric blunderbuss pharmacy, with its complicated mixture of many drugs in a single prescription, so fashionable in those days, failed to appeal to this apostle of common sense.

Many of the reforms advocated by Pinel in the Salpètrière have now become so universally accepted in institutions for the insane that it is a little difficult to understand the shock and skeptical opposition he encountered. His reforms included the organization of workrooms in which the quiet women patients might sew and put by a small sum. He recommended the provision of extensive grounds, a sort of farm, connected with every lunatic asylum. He is said to have introduced the system of feeding by a tube passed through one nostril into the stomach when patients refused their food. His attempts at classification of disease in general and mental disease in particular were not always successful, but he had the great merit of being profoundly dissatisfied with the "systems" of medicine to which most of his contemporaries complacently subscribed and to which they cheerfully gave their unquestioning support.

Many learned works were published by Pinel whose "Nosographie Philosophique" appeared in eleven editions in the course of some twenty years and was the standard textbook for medical students for about a quarter of a century. Pinel was about 50 years old on his appointment to the chair of medical pathology, and though he was no brilliant orator, students flocked to his lectures. In 1805, Napoleon appointed him as his consulting physician, and on the emperor's return from Elba he is said to have asked Pinel whether or not insanity was on the increase. While giving Napoleon an assurance in the negative, Pinel commented to himself on the trace of madness from which "superior geniuses and famous and ambitious conquerors are not exempt."

The glimpses we have of Pinel's character are singularly attractive. "Little pride and not a trace of avidity or jealousy. In spite of so many triumphs and a well sustained popularity, a sincere modesty. A great love of truth. Above all, a charming goodness which made him beloved by his patients, his pupils, and a goodly number of his colleagues," comments Maurice de Fleury. Of his great courage, an account has already been given. But he was also singularly timid, inclined to stammer at times, to be jerky in his speech or even to be silent when criticized in public by some bombastic orator, thundering down on him like a charge of cavalry.

In his old age, Pinel divided his time between his home in the country and the Salpètrière, and it was in this hospital, on which he had forever stamped his personality, that he passed away on Oct. 25, 1826. His funeral was conducted with all the honors a grateful country could show him. Perhaps the greatest honor was the procession of old infirm women inmates of the Salpètrière who, in spite of a storm raging on that day, insisted on following his coffin through the streets of Paris to its last resting place.

The revolution which Pinel started in the attitude of the sane toward the insane was so slow that, a quarter of a century after he had struck the chains from the lunatics in Paris, a pupil of his, Esquirol, wrote: "These unfortunate people are treated worse than criminals, reduced to a condition worse than that of animals. I have seen them naked, covered with rags, and having only straw to protect them against the cold moisture and the hard stones they lie upon, deprived of air, of water to quench thirst, and all the necessaries of life, given up to mere jailors and left to their surveillance. I have seen them in their narrow and filthy cells, without light and air, fastened with chains in these dens in which one would not keep wild beasts. This I have seen in France, and the insane are everywhere in Europe treated in the same way." But Pinel's spirit was at work, and by 1838, there had been a general transfer of the insane in France from workhouses and prisons to special asylums.

Ewing Galloway

*The wise housekeeper always checks her bills.*

# FOODS--

## Their Selection and Preparation

### I. HOW, WHERE AND WHAT TO BUY

*By E. M. Geraghty*

THE proper and satisfactory feeding of people in a family group or in a larger group is based on the general background of a knowledge of simple essential principles of nutrition, interesting and varied menus, good preservation of food, deft and tasty preparation, and dainty and interesting service of the resultant meals, tied up with intelligent and seasonal selection of food.

The points of "future" or "spot" purchasing and home or commercial canning are debatable, but whatever the procedure on these points there are certain rules of marketing and food selection that are basic:

1. Do your marketing by personal call and not over the telephone except for trade-marked brands.
2. Know where the trade-marked brands and regular staples may be procured at least cost.
3. Actually see the meats, fruits and vegetables you are buying.
4. Have menus made for a week at a time and make up market orders at the same time.
5. Buy only as much as may be used to good advantage.
6. If there is a real bargain in fruits and vegetables or some other items which would make an especial appeal—and the price is within your allowance—substitute this for some other planned purchases.
7. Make sure of the price before giving an order.
8. Buy by weight. Whenever possible, watch the scales.
9. Check your bills.
10. Know when you may expect delivery.
11. Have a definite amount of money per person for each group of foods: meat, milk, butter and other fats, fruit (fresh and canned), vegetables (fresh and canned), groceries and bread. It is best if this amount is gaged by the year rather than by the month; then a saving one month will permit a treat the next month. In figuring the detailed food budget from your total money for food, the following guides may be of value:

(*a*) Allow the price of one quart of milk for each child and one pint for each adult daily.

(*b*) Under "meat" allow for meat, fish, cheese and eggs. The amount spent for this should not be more than the amount allowed for fruits and vegetables; a safe range is from 15 to 25 per cent of the total amount of food allowance.

(*c*) Spend as much for fruits and vegetables as you do for meat, fish, cheese and eggs; again, plan from 15 to 25 per cent.

(*d*) Bread, crackers, and the like should not take more than 6 per cent of the total food allowance.

(*e*) Butter, cream, fats and oils should range from 10 to 12 per cent of the total food allowance.

(*f*) Groceries, tea, coffee, cocoa, cereals, sugar and syrups should be estimated at from 9 to 12 per cent.

There are certain definite standards by which one may be guided in the selection of foods in the market. Some of the most important are those drawn up by the United States Depart-

ment of Agriculture. The finest grade is U. S. Fancy, the next is U. S. no. 1. Added to this, we have standards for each item, such as size, shape, color, maturity and state of freshness.

Western boxed apples and pears are graded as Extra Fancy, Fancy and Grade C. The apples come in various sizes, ranging 88, 100, 113, 125, 138, 150, 163 or 175 in a standard box. The large varieties (88's and 100's) in Fancy sell for more than the Extra Fancy in the small sizes. Eastern apples in baskets and barrels are graded as U. S. Fancy, U. S. no. 1 and U. S. no. 2. The size is usually specified in terms of the minimum diameter of the fruit, 2¼ inches, 2½ inches and 2¾ inches.

Florida oranges and grapefruit are U. S. Fancy, U. S. no. 1 or U. S. no. 1 Bright, and U. S. no. 2. The leading California fruit is labeled Sunkist; the second grade is Red Ball.

Canned fruits are graded according to standards adopted by the local canners' association. The Canners' League of California gives the general description of grades of fruit as follows:

1. Superlative Quality—the top grade to be designated Fancy and packed in extra heavy syrup.
2. Fine Quality—the grade between the top and the standard grade to be designated Choice and packed in heavy syrup.
3. Good Quality—the medium grade to be designated Standard and packed in medium syrup.
4. Second Quality —(*a*) fruit packed in 10 per cent syrup to be designated Second, and (*b*) fruit packed in water to be designated Water, the fruit for bakery use to be labeled Pie and Solid Pack Pie.

Heavy syrups to be used on apricots, peaches and plums, and beginning with 10 per cent sugar by weight on Seconds, to increase in steps of 15 per cent to each grade.

Light syrups to be used on pears, cherries and grapes, and, beginning with 10 per cent sugar by weight on Seconds, to increase in steps of 10 per cent to each grade.

The number of pieces in cans of different capacities is a very good point to know. The specifications on this point are given both for the maximum and for the minimum count:

TABLE 1.—*Maximum Number of Pieces in Each Can*

| | No. 1 Flat | No. 1 Tall | No. 2 Tall | No. 2½ | No. 3 | No. 10 |
|---|---|---|---|---|---|---|
| Apricots | | | | | | |
| Fancy | 14 | 16 | 19 | 24 | 29 | 86 |
| Choice | 18 | 20 | 24 | 30 | 36 | 108 |
| Standard | 25 | 26 | 31 | 42 | 50 | 151 |
| Pears and peaches | | | | | | |
| Fancy | 7 | 8 | 9 | 12 | 14 | 43 |
| Choice | 9 | 10 | 12 | 15 | 18 | 54 |
| Standard | 11 | 13 | 15 | 21 | 25 | 76 |
| Royal Anne cherries | | | | | | |
| Fancy | 51 | 57 | 67 | 85 | 102 | 306 |
| Choice | 63 | 71 | 83 | 105 | 126 | 378 |
| Standard | 79 | 89 | 106 | 145 | 174 | 522 |
| White cherries and black cherries | | | | | | |
| Fancy | 60 | 67 | 79 | 100 | 120 | 360 |
| Choice | 75 | 84 | 99 | 125 | 150 | 450 |
| Standard | 95 | 107 | 129 | 175 | 210 | 630 |

TABLE 2.—*Minimum Number of Pieces in Each Can*

| | No. 1 Flat | No. 1 Tall | No. 2 Tall | No. 2½ | No. 3 | No. 10 |
|---|---|---|---|---|---|---|
| Apricots | | | No minimum | | | |
| Pears and peaches | 3 | 4 | 4 | 6 | 6 | 18 |
| Royal Anne cherries | | | No minimum | | | |
| White cherries and black cherries | | | No minimum | | | |

The fruits are graded in the following manner:

*Apricots:*
1. Fancy—in syrup, 55 per cent sugar when packed
2. Choice—in syrup, 40 per cent sugar when packed
3. Standard—in syrup, 25 per cent sugar when packed
4. Seconds—in syrup, 10 per cent sugar when packed
   (*a*) Packed in water
   (*b*) Packed for bakery use
      1. Trade designation: Pie; minimum drained weight, 70 ounces
      2. Trade designation: Solid Pack Pie; minimum drained weight, 92 ounces

*Royal Anne Cherries:*
1. Fancy—in syrup, 40 per cent sugar when packed
2. Choice—in syrup, 30 per cent sugar when packed
3. Standard—in syrup, 20 per cent sugar when packed
4. Seconds—in syrup, 10 per cent sugar when packed

*White Cherries and Black Cherries:*
1. Fancy—in syrup, 40 per cent sugar when packed
2. Choice—in syrup, 30 per cent sugar when packed
3. Standard—in syrup, 20 per cent sugar when packed
4. Seconds—in syrup, 10 per cent sugar when packed

*Yellow Cling Peaches:*
1. Fancy—in syrup, 55 per cent sugar when packed
2. Choice—in syrup, 40 per cent sugar when packed
3. Standard—in syrup, 25 per cent sugar when packed
4. Seconds—in syrup, 10 per cent sugar when packed
   (*a*) Packed in water
   (*b*) Packed for bakery use
      1. Trade designation: Pie; minimum drained weight, 76 ounces
      2. Trade designation: Solid Pack Pie; minimum drained weight, 92 ounces

*Yellow Free Peaches:*
Sugar percentage same as Yellow Cling peaches.

*Bartlett Pears:*
1. Fancy—in syrup, 40 per cent sugar when packed
2. Choice—in syrup, 30 per cent sugar when packed
3. Standard—in syrup, 20 per cent sugar when packed
4. Seconds—in syrup, 10 per cent sugar when packed
   (*a*) Packed in water
   (*b*) Packed for bakery use

*Plums:*
1. Fancy—in syrup, 55 per cent sugar when packed
2. Choice—in syrup, 40 per cent sugar when packed
3. Standard—in syrup, 25 per cent sugar when packed
4. Seconds—in syrup, 10 per cent sugar when packed

The Michigan Canners' Association gives the following data on additional items:

*Red Sour Pitted Cherries:*
1. Fancy—packed with 60 per cent syrup
2. Choice—packed with 40 per cent syrup
3. Standard—packed with 20 per cent syrup
4. Natural—packed without syrup

*Blackberries and Dewberries:*
1. Fancy—packed with 60 per cent syrup
2. Choice—packed with 40 per cent syrup
3. Standard—packed with 20 per cent syrup
4. Natural—packed without syrup

*Gooseberries:*
1. Fancy—packed with 60 per cent syrup
2. Choice—packed with 40 per cent syrup
3. Standard—packed with 20 per cent syrup
4. Natural—packed without syrup

*Huckleberries:*
1. Fancy—packed with 60 per cent syrup
2. Choice—packed with 40 per cent syrup
3. Standard—packed with 20 per cent syrup
4. Natural—packed without syrup

*Raspberries, Black:*
1. Fancy—packed with 40 per cent syrup
2. Choice—packed with 30 per cent syrup

3. Standard—packed with 20 per cent syrup
4. Natural—packed without syrup

*Raspberries, Red:*

1. Fancy—packed with 60 per cent syrup
2. Choice—packed with 40 per cent syrup
3. Standard—packed with 20 per cent syrup
4. Natural—packed without syrup

*Strawberries:*

1. Fancy—packed with 60 per cent syrup
2. Choice—packed with 40 per cent syrup
3. Standard—packed with 20 per cent syrup
4. Natural—packed without syrup

**The Northwest Canners' Association gives the following data on additional items:**

*Cranberries:*

1. Fancy—packed with 60 per cent syrup
2. Choice—packed with 40 per cent syrup
3. Standard—packed with 20 per cent syrup
4. Seconds—packed with 10 per cent syrup
5. Water or Pie

*Loganberries:*

1. Fancy—packed with 70 per cent syrup
2. Choice—packed with 50 per cent syrup
3. Water or Pie

**The following specifications for canned vegetables are used by the Association of New York State Canners.**

*Peas:*

Canned peas are the canned vegetables prepared from the fresh but immature seeds of the common or garden pea (Pitsum sativum) by shelling, winnowing and thorough washing, with or without grading and with or without precooking (blanching), and by the addition, before sterilization, of the necessary amount of potable water with or without sugar and salt. The peas used for canning are early variety peas, which are from seed of early maturing sorts having a smooth skin (sugar peas, or sweet peas), and peas which are from seed of later maturing sorts having a wrinkled skin and sweet flavor.

Qualities: Fancy Quality canned peas are prepared from fresh young tender peas of practically uniform color and size, unless declared to be ungraded for size. They have a practically clear liquor, are free from flavor defects and practically free from skins and split peas. Choice Quality canned peas are prepared from fresh peas which may be less tender than those used for Fancy Quality and are of reasonably uniform color and size, unless declared to be ungraded for size. They have a reasonably clear liquor, though not necessarily free from sediment, and are reasonably free from flavor defects, skins, splits, or discolored peas. Standard Quality canned peas are prepared from fresh though possibly more nearly matured peas. They may lack some uniformity in color and size, may have a roily liquor and may have some skins, splits, or discolored peas. Off-Quality canned peas are prepared from fresh peas that lack in other respects the qualifications of the higher qualities.

Canned pea sizes: No. 1 peas are peas which were, before precooking (blanching), small enough to pass through a screen with a mesh measuring $^{9}/_{32}$ inch (7 mm.). No. 2 peas are peas which were, before precooking (blanching), small enough to pass through a screen with a mesh of $^{10}/_{32}$ inch (8 mm.), but too large to pass through a $^{9}/_{32}$ mesh. No. 3 peas are peas which were, before precooking (blanching), small enough to pass through a screen of $^{11}/_{32}$ inch (8.7 mm.), but too large to pass through a $^{10}/_{32}$ inch mesh. No. 4 peas are peas which were, before precooking (blanching), small enough to pass through a screen of $^{12}/_{32}$ inch (9.5 mm.) mesh, but too large to pass through an $^{11}/_{32}$ inch mesh. No. 5 peas are peas which were, before precooking (blanching), small enough to pass through a screen of $^{13}/_{32}$ inch (10.3 mm.) mesh, but too large to pass through a $^{12}/_{32}$ inch mesh. No. 6 peas are peas which were, before precooking (blanching), too large to pass through a screen of $^{13}/_{32}$ inch (10.3 mm.) mesh. There shall be a reasonable tolerance for the number of smaller peas present in any specified size.

Ungraded, unsifted, Run O' Pod, or Telephone Style are peas not graded for size before precooking (blanching); when any size has been removed, the designation "ungraded for size" may be used only if qualified with a statement of the size or sizes removed.

*Ewing Galloway*

***Know where good foods may be procured at least cost.***

*Corn:*

Canned corn is the canned vegetable prepared from kernels of fresh sweet corn. The corn is husked, trimmed or sorted, thoroughly washed, and cut from the cob, and silks, pieces of cob and husk are removed. It is packed with potable water, with or without the addition of sugar or salt. Cream Style is the product prepared from sweet corn removed from the cob by shallow cutting through the grain and subsequent scraping. It has a more or less creamy consistency. Whole Grain Style is the product prepared from sweet corn and from the cob in such a way as to leave the grain almost whole.

Qualities: Fancy Quality is packed from selected stock of young tender sweet corn while fresh, and has the distinctive flavor of young corn. It is free from specks and discolored kernels and is practically free from pieces of cob, silk and husk. It has a bright color, and, unless packed Whole Grain Style, has a creamy consistency. Choice Quality is packed from reasonably young and tender sweet corn while fresh, and has the flavor of young corn. It is reasonably free from specks, discolored kernels and pieces of cob, silk and husk. It has a reasonably bright color. Standard Quality is packed from fresh sweet corn and has less attractive flavor, color or appearance than the higher grades. It is free from any considerable amount of cob, silk, husk and discolored kernels.

*String Beans:*

Canned string beans are the canned vegetables prepared from fresh immature pods of certain varieties of string beans, the pods to be picked from growing vines, snipped with the removal so far as possible of strings, and the whole or cut beans precooked (blanched) and washed, with the addition before sterilization of the necessary amount of potable water, with or without salt.

Qualities: Fancy Quality canned string beans are prepared from young tender pods, packed while still fresh, of practically uniform color and size unless declared ungraded for size; they have a clear liquor, are practically free from tough strings and are free from rust, stems and flavor defects. Choice Quality canned string beans are prepared from young tender pods, packed while still fresh, of reasonably uniform color and size unless declared ungraded for size; they have a clear liquor, are reasonably free from tough strings and are practically free from rust, stems and flavor defects. Standard Quality canned string beans are prepared from pods packed while still fresh, and with a fairly clear liquor. They may show less uniformity in color and size or more strings than the higher qualities but shall be reasonably free from rust, stems or flavor defects. Off-Quality canned string beans are prepared from pods while still fresh, but may lack in other respects the qualifications of the higher qualities.

Grades with respect to size: When string beans are graded as to size they shall before blanching pass through sieves of the following dimensions and shall be known by the grade number indicated: no. 1, 12/64 inch; no. 2, 14/64 inch; no. 3, 17/64 inch; no. 4, 20/64 inch; no. 5, over 20/64 inch.

NOTE.—The above standards apply equally to wax beans, the word "wax" being substituted for "string" in all cases.

*Tomatoes:*

Canned tomatoes are the canned vegetables prepared from sound ripe fresh tomatoes of any red variety by thorough washing and scalding, and by proper peeling, coring and trimming, with or without the addition of sugar and salt, and sterilized by heat. The liquor used for filling the spaces between the fruits is juice derived from tomatoes after they have been prepared as described and does not exceed that originally present in the prepared fruit.

Qualities: Fancy Quality canned tomatoes are prepared from select tomatoes, uniformly red in color, practically free from pieces of skin, cores and blemishes, and are whole or almost whole. Choice Quality canned tomatoes are prepared from tomatoes practically free from under-colored parts, from pieces of skin, cores and blemishes, and are for the most part whole or in large pieces. Standard Quality canned tomatoes are prepared from tomatoes reasonably free from under-colored parts. The tomatoes may be broken but are reasonably free from pieces of skin, cores and blemishes.

*Spinach:*

Canned spinach is the canned vegetable prepared from the fresh clean leaves of Spinachia oleracea by thorough washing, sorting and blanching (precooking), and by the addition, before sterilization, of the necessary amount of potable water, with or without salt.

Qualities: Fancy Quality canned spinach is prepared from fresh, young and tender leaves. It is practically free from grit, discolored leaves and fibrous stems and reasonably free from seed heads. Standard Quality canned spinach is prepared from fresh leaves, but in other respects lacks some of the qualifications of Fancy Quality.

*Beets:*

Canned beets are the canned vegetables prepared from sound, deep-red garden varieties of Beta vulgaris, by topping, washing, blanching, peeling, and by the addition before sterilization of the necessary amount of potable water, with or without the addition of sugar and salt.

Qualities: Fancy Quality canned beets are prepared from young tender deep-red beets of uniform color. They must be well peeled and trimmed, and free from flavor defects. When packed whole and graded for size they must be practically uniform in thickness; when sliced, the pieces must be practically uniform in size and shape. Choice or Standard canned beets are those which lack in some respects the qualifications of Fancy Quality.

NOTE.—Beets are usually packed in only two qualities and there is no well established custom as to naming the second.

*Pumpkin:*

Canned pumpkin is the canned vegetable prepared from various varieties of the common field or pie pumpkin Cucurbita pepo by thorough washing, stemming, steaming and reducing to a pulp, and sterilizing by heat.

Qualities: Fancy Quality canned pumpkin is prepared from fresh, fully matured bright golden pumpkin. It is a smooth, heavy, thoroughly screened pulp practically free from particles of skin or seeds and sufficiently dry so that when cold it will not more than pour out of an open inverted can. Choice or Standard Quality canned pumpkin is prepared from fresh pumpkin but lacks in some respects the qualifications of Fancy Quality.

NOTE.—Pumpkin is usually packed in only two qualities and there is no well established custom as to naming the second quality.

*Squash:*

Canned squash is the canned vegetable prepared from fresh, fully matured squash of the species Cucurbita maxima, by thoroughly washing, stemming, steaming and pulping, or by peeling and cutting into pieces.

Qualities: Fancy Quality canned squash is prepared from fresh, fully matured squash. It shall be a smooth, heavy, thoroughly screened pulp (unless cut into pieces), practically free from any particles of skin or seeds, and sufficiently dry that when cold it will not readily run or pour out of the open inverted can. Choice or Standard Quality canned squash is prepared from fresh squash but lacks in some respects the qualifications of Fancy Quality.

NOTE.—Squash is usually packed in only two qualities and there is no well established custom as to naming the second quality.

*Succotash:*

Canned succotash is the canned vegetable prepared from kernels of fresh sweet corn mixed with either fresh or dry lima beans. The corn is husked, trimmed or sorted, thoroughly washed, and cut from the cob, and silks, pieces of cob and husk are removed. The beans, if green, are threshed, washed, hand picked and blanched; if dry, they are hand picked and blanched. The corn and beans are mixed, and potable water, with or without sugar and salt, is added before sterilization.

Qualities: The same requirements hold as for Fancy, Choice, and Standard corn, respectively.

**Points in common on all canned fruits or vegetables are the size of the can, the approximate weight and the contents in terms of household measurements:**

TABLE 3.—*Standard Requirements*

| Size of Can | Approximate Contents | Approximate Weight |
|---|---|---|
| 1 | 1⅓ cup | 10 to 16 oz. |
| 2 | 2½ cups | 18 to 20 oz. |
| 2½ | 3½ cups | 28 to 30 oz. |
| 3 | 4 cups | 32 to 36 oz. |
| 10 | 13 cups | 6 lbs. 4 oz. to 6 lbs. 14 oz. |

**Smaller cans used for specialties, such as sardines, pimentoes, potted meats and lobster, are numbered ¼, ½ and ¾.**

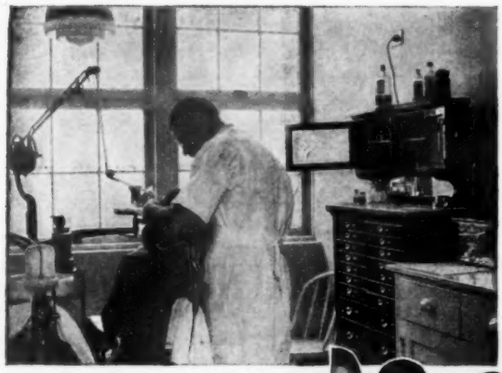
**The quality and the size of the can to choose must be determined by the use to which the goods are to be put. The better grades of fruit should be chosen for service alone, but a less choice offering is all right for use in ice cream, gelatins, or fruit ices. The cheaper berries will do for ices and for juice for gelatins, but they do not make high grade pies. Cheap and uneven sizes of peas and string beans will do in casserole dishes and in soup.**

**Trade-marked, nationally distributed brands are usually very reliable. If you find a certain brand which meets your needs in most ways, it is good policy to continue using that brand rather than to shop around. The good-will bought by years of honest merchandising has cost the firm great sums of money and they are not likely to be lax in standards of output. A few cents saved on food bills at a sacrifice of stability of quality is not real economy.**

**Various considerations govern the selection of other items of food. In some instances, personal preference influences selection; in others, the use to which the article is to be put, and in still others, the physical appearance of the foodstuff determine the choice. The following guides for proper selection are helpful:**

Cocoa: dark brown and free from a sandy texture.
Coffee and tea: personal preference for a certain blend.

*(Continued on page 468)*



# Cornelia Moore Free Dental Foundation

By
E. J. LAMB

IN THE will of Dr. Harry W. Moore, who passed away in Santa Barbara, Calif., on Sept. 12, 1923, provision was made for the endowment of a dental clinic for children financially unable to procure suitable dental treatment.

Dr. Moore had a great love for children. He keenly sympathized with the unfortunate child who suffered the loss of a tooth for want of pecuniary assistance. For many years before his death, while he was engaged in the active practice of dentistry he gave much of his time to these poor children. He was determined that this work should not cease at the time of his death and accordingly bequeathed his entire estate in a deed of trust to establish a memorial to his beloved wife Cornelia Moore. The clinics established are known as the "Cornelia M. Moore Memorial Free Dental Foundation." The property of the foundation is governed by a board of five trustees, comprised of local men of the legal, medical and dental professions.

According to the will of Dr. Moore, "the dentists so employed shall give either all or such part of their time as may be required by the trustees to free dental services for children of not more than 16 years of age, resident in Santa Barbara or its environs. Such free service shall be restricted to children who themselves or whose parents are unable from poverty to procure suitable dental treatment without aid; but the precise terms under which children may be entitled to such free service shall be controlled by regulations to be framed . . . by the trustees."

*Instruction in dental hygiene is given in each elementary school classroom.*

Realizing that preventive dentistry must go hand in hand with curative dentistry, the trustees requested that the board of education of Santa Barbara assume the payment of half the salary of the two dental hygienists employed in this work.

The procedure of the dental work with the school children is briefly as follows: A course of instruction is given to each elementary school classroom for twenty minutes every other week. These lectures include instructions on the structure and formation of teeth, the names of the deciduous and permanent teeth, and the effect of proper hygiene and diet on the prevention of caries.

In case any defects are found, a notice is sent to the parent, advising him to procure for the child the services of a dentist; in case of necessity, arrangements are made for free dental work at the clinic, after investigations have been made by the social welfare worker.

*Expenditure for the Year 1930-1931*

| | |
|---|---|
| One full time dentist | $2,175 |
| Two full time hygienists (½ salary) | 1,800 |
| One part time social case worker | 500 |
| Supplies | 325 |
| Total | $4,800 |

*Dental Report for School Year 1930-1931*

| | |
|---|---|
| **Dentist's Report** | |
| Fillings | 859 |
| Extractions | 497 |
| Treatments | 452 |
| Prophylaxis | 337 |
| **Dental Hygienist's Report** | |
| Number of children examined | 3,371 |
| Number of children with teeth in good condition | 1,746 |
| Number of children with defective teeth (including six-year molars) | 1,634 |
| Number of children graded "good" in hygiene | 1,721 |
| Number of lessons | 1,151 |
| Number of home calls | 133 |

NOTE: The entire child population of Santa Barbara between the ages of 6 and 16 years is 6,300.

By CALVIN GODDARD

*The ultraviolet crime detector literally reads between the lines and makes hidden messages visible.*

# How Science Solves Crime

## *IV. The Ultraviolet Crime Detector*

AN EXTENSIVE discussion of the ultraviolet rays, their origin and properties is liable to lead one into a pedantic discourse on physics and radiation. Let us therefore abbreviate the technical discussion of these waves of "black light," as ultraviolet rays are frequently called, to the simple statement that ordinary white light visible to the human eye is broken down, on passage through a prism, into its several constituent colors which make up the spectrum so familiar to all; namely, red, orange, yellow, green, blue, indigo and violet. The reason that white light undergoes this resolution into its varicolored components is because each of the latter possesses what is known as a different "wavelength." The physical properties of a prism are such that it bends or refracts lights of varying wavelengths to different degrees: red (of long wavelength) undergoes the least bending, and blue (of short wavelength) the most, with the result that when a beam of white light enters a prism, and its various ingredients are subjected to the different degrees of bending peculiar to their particular wavelengths they emerge, not together as they entered, but strung along in a row with red at one end and blue at the other. Investigating further, one finds that other invisible rays, close relatives of the visible rays, exist in space and have definitely measurable wavelengths. Thus, just below the red end of the spectrum are found the infrared or heat rays, while beyond the other, the violet end, are the so-called ultraviolet rays; these are in turn subject to subdivision and classification into special groupings, for they do not all by any means possess the same wavelength. And proceeding further into the realm of rays of still shorter length, one comes on the x-rays.

So it becomes apparent that light, heat, ultraviolet rays and x-rays are all more or less members of the same family, in that they are constituted of vibrations in the all-pervading ether and all travel at the same speed through that medium (approximately 186,300 miles a second); but they are dissimilar in that they possess different wavelengths or vibratory periods. It happens that rays of certain wavelengths, the so-called visible rays, affect the retina of the eye in such a manner as to produce the sensation of light, while other rays, of different lengths, do not produce this sensation and are therefore, to us, invisible. The ultraviolet rays, as already indicated, are classed among the latter, but

when they impinge on substances of certain kinds they may produce visible effects, as shall be demonstrated later.

The physiologic and pathologic properties of ultraviolet rays have long been known. It is recognized that a certain proportion of the sun's rays are ultraviolet and that these are screened out by ordinary window glass, so that glass of a special composition must be employed if one is to enjoy indoors the beneficial effects of the sun's ultraviolet radiation. We have learned that, outdoors, judicious exposure to the sun's rays produces a healthy glow and a feeling of well being, while overexposure results in painful sunburn, with desquamation of the skin. It has further been discovered that ultraviolet rays may be produced artificially and that the most satisfactory instrument for this purpose, at least for criminologic investigations, is one in which a mercury vapor is produced in a tube of fused quartz, the latter being a medium that readily permits the passage of the ultraviolet rays.

### *Counterfeiting the Sun's Rays*

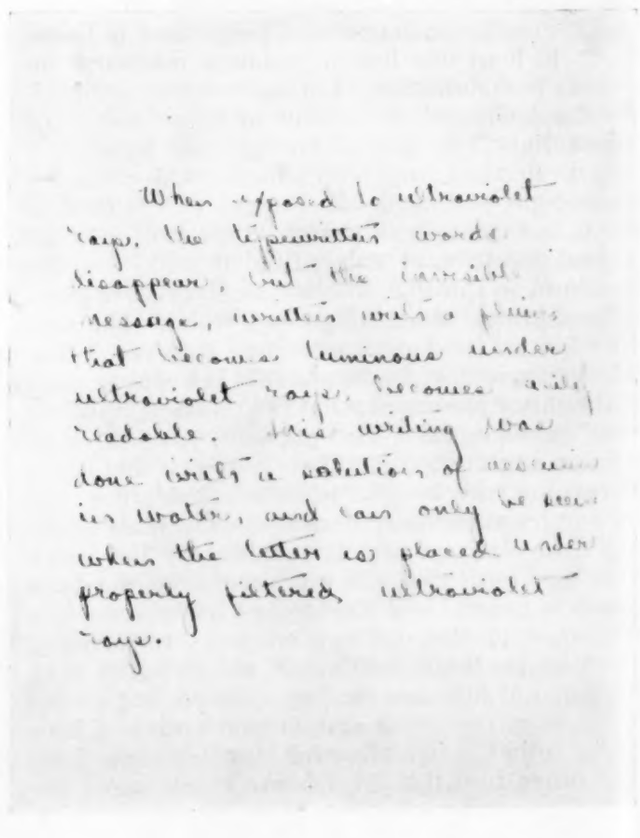
If such a lamp is fitted with a Woods filter of nickel oxide glass, nearly all the visible rays produced are absorbed, so that the radiation passing this screen is almost entirely ultraviolet.

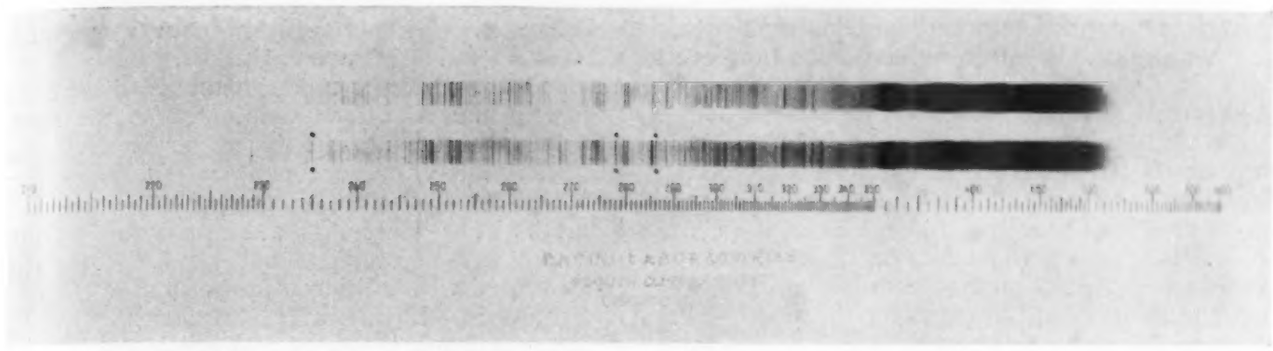
Given such a lamp, with a proper filter, to what uses can one put it in the field of criminal investigation? We are all familiar with the phenomenon of phosphorescence. It is exhibited by the radium-painted dials of our wrist watches when we observe them in the dark, by the familiar firefly and glow-worm, and by certain fishes and lower forms of life in tropical waters. Anything that glows in the dark, without an accompanying production of heat, is said to be phosphorescent. Fluorescence may be described as an evanescent phosphorescence set up in a given medium as a result of some external stimulus and lasting only as long as the stimulus is applied. Again, there appear to be transition forms between the two, as when a material not ordinarily phosphorescent continues to glow for some time after the removal of a stimulus that has caused it to fluoresce.

### *How to Tell Good Money from Bad*

Ultraviolet rays have the property of causing many different substances to fluoresce or become illuminated and to give off, while subjected to the rays, lights of different colors. Furthermore, unless two materials exposed to ultraviolet radiation possess the same chemical and physical make-ups, the colors which emanate from them will differ. And herein lies the great value of ultraviolet radiation in crime detection, for by placing in the path of the rays two or more objects to be compared (one known to be genuine and the other of doubtful origin) one can often tell immediately whether the second specimen is authentic or spurious. Thus, two ten-dollar bills side by side beneath the rays will, if both are true government issues, fluoresce in the same fashion. But if one is a counterfeit and printed or engraved on paper of a composition different from that of the genuine —and it is most unusual for counterfeiters to have access to official banknote paper—the bills

A meaningless message may be typewritten on an ordinary letterhead, but a secret message may be written on the same sheet with an invisible fluid. Such fluids have existed under the name of sympathetic inks, but these required heat or chemical methods for their development. The fluid used on this letter can only be detected by placing the letter in a totally dark room and exposing it to invisible ultraviolet rays.


When exposed to ultraviolet rays, the typewritten words disappear, but the invisible message, written with a fluid that becomes luminous under ultraviolet rays, becomes easily readable. This writing was done with a solution of quinine in water, and can only be seen when the letter is placed under properly filtered ultraviolet rays.



will exhibit such different shadings as to arouse immediate suspicion. This holds true for counterfeit postage stamps, of which, because of the great value of certain early issues, there are many. In the case of stamps from which cancelation marks have been "washed" so that they may be used again, the traces of the erased cancelation become instantly visible when ultraviolet radiation is applied. In the study of documents, such as wills or deeds, the presence of an erasure, no matter how carefully executed, is at once apparent; furthermore, the figures, letters or words that have been removed can usually be deciphered.

### *Hidden Messages Are Brought to Light*

One of the most important uses of ultraviolet energy is in exposing the existence of secret messages penned between the lines of documents otherwise innocent in content. Thus an inmate of a penitentiary writes to a relative, asking him to bring tobacco, reading matter, postage stamps and a change of clothing at his next visit. The letter is read in the warden's office, sealed, mailed and delivered. But if the note is placed under a lamp emitting ultraviolet rays, instead of being subjected to a mere visual scrutiny, there shows forth a second message, invisible to the eye and written between the lines of the first in some readily available medium, such as suspension of aspirin in water or in fruit juices. Here one finds the following: "Be at the north gate at 12 noon on the thirteenth. When I whistle three times, throw the rope over the wall."

The latter communication can be brought out by the application of heat to the paper on which it is inscribed, but once so treated it will remain permanently visible. So this maneuver is of little value to the censor for if he adopts it, it is useless to forward the missive to the designated recipient. But subjection to ultraviolet radiation does not cause any lasting change; the message becomes again invisible as soon as the sheet is removed from the influence of the rays, and the addressee undertakes to carry out the request it embodies, all unconscious of the fact that the prison authorities are fully aware of it. The striking manner in which such invisible communications can be superadded to others written openly and quite innocent in purport is illustrated in the message reprinted from a recent article, "The Ultraviolet Detective," which appeared in the *American Journal of Police Science* (May-June, 1930, p. 237). In the same article is reported a case so unusual in its features as to remind one of some of the adventures of Sherlock Holmes: A man was murdered, and a strand of hair, obviously not from the victim's head, constituted one of the few available clues. Three suspects were seized and held. A microscopic comparison of the hair in evidence with samples from the heads of all the suspects did not show in any instance the presence of common characteristics sufficient to form the basis of an identification. But when subjected to ultraviolet rays, the single hair shone with a peculiar fluorescence, as did every sample taken from one of the three suspects; but none of the samples taken from the other two reacted in this manner. Investigation demonstrated the fact that he whose hair exhibited this peculiarity was addicted to the use of aspirin and that this drug had reached its telltale location through secretion by the sweat glands of the scalp. With this evidence, his guilt was soon established!

### *The Ultraviolet Lamp Identifies Broken Glass*

In another remarkable case reported from Ceylon by C. T. Symons in the London *Police Journal* (vol. III, pp. 237-238) a child was killed by an automobile, one of the headlights of which was smashed at the time. A suspected car with one broken lamp was located, and fragments of glass found at the scene of the accident were compared with some of those remaining in the lamp frame. The former were too minute to permit of any useful comparisons until the ultraviolet lamp was brought into use. It then developed that both sets of fragments manifested a peculiar brownish fluorescence; the reaction was identical in the two cases and was presumably due to the presence of some unusual metal in the composition of the fragments. No other specimens of glass available from other sources exhibited this characteristic. And thus strong presumptive evidence was established that the car suspected had actually figured in the accident.

In the study of documents on which wax seals are used, the fact that these have been tampered with is often readily exposed by ultraviolet studies. It is fairly easy for one skilled in the art to remove such seals with a thin knife blade that has been heated, rifle the parcel involved, replace the seals and apply around the outer edges as a binder a little more wax of the same color. But unless the new wax is of the same chemical composition as the old—an achievement difficult of attainment on the part of the average illicit letter opener—the original core and the added outer ring that now constitute a seal will fluoresce quite differently when the ultraviolet radiation is applied.

The fact that every known element has its characteristic spectrum is common knowledge. But since many of these spectrums are present only beyond the violet end of the visible spectrum, one often finds that ultraviolet radiation must be called on to assist in detecting the presence of poisons in some substance submitted for examination. Since, fortunately for the analyst, amounts so minute that they would fail to be noted on ordinary chemical analyses produce characteristic lines in the ultraviolet zone of a spectrogram, it frequently becomes possible for one to employ this means of bringing an investigation to a successful conclusion. The two spectrograms illustrated are reprinted from "The Ultraviolet Detective," previously mentioned; the upper records the spectrum of an arc between two graphite carbons and the lower a spectrum from the same arc after a drop of the material suspected of containing poison had been placed on one of the carbons. In the lower spectrogram are found three new lines, not present in the upper spectrogram, and indicating from their location the presence of arsenic in the material tested. By this maneuver the fact that a certain person had been the victim of wilful poisoning by arsenic was conclusively established and another crime "in silent darkness born" was brought to light by the power of the ultraviolet rays.

Other uses of ultraviolet energy include studies of stains of various kinds. In cases of suspected rape, if the undergarments of the suspect and the victim are subjected to the rays the presence or the absence of areas giving a peculiar bluish fluorescence due to the presence of dried seminal fluid will quickly be demonstrated. These areas, once located, may be cut out and investigated further by the Florence test coupled with a microscopic examination for spermatozoa. If such areas are absent, further search for seminal stains will prove absolutely useless.

In the realm of gem studies, ultraviolet radiation has useful applications, but how extensive these will prove has not yet been established. According to many authorities, genuine pearls and "culture" pearls, being of the same chemical composition, fluoresce alike, but quite differently from cheaper artifacts. Diamonds vary markedly in their reaction to the rays, possibly one in twenty-five fluorescing strongly in their presence. An amusing and sometimes useful fact is that natural teeth will light up brilliantly under the rays while artificial ones exhibit a dead chocolate color.

Returning to the subject of documents, an excellent means of assuring the authenticity of one's signature is to add to the ink which one commonly employs a given quantity of some chemical having known fluorescent qualities under the ultraviolet lamp. A forged signature placed under the revealing rays will fail to show the characteristic fluorescence. And again, other valuable materials, such as silks, may be distinctively and invisibly marked at their source of production and traced to their original manufacturer if stolen and recovered. Indeed, an attempt to recount the myriad uses to which "black light" is adaptable would require a volume of no mean size. Suffice it to say that though its ultimate possibilities have not as yet even been envisioned it has already become one of the most important weapons in the hands of the scientific crime investigator.

*"The best laid schemes o' mice and men," wrote Robert Burns, "gang aft a-gley, and leave us naught but grief and pain for promised joy."*

*In her article, "The Criminal Puts It in Writing," which will appear in the June number, Katherine Keeler tells how some of the best laid plans of the criminal are frequently foiled by the appearance of tell-tale evidence in handwritten or typewritten documents.*

*Dr. Anson G. Henry, a life-long friend of both Mr. and Mrs. Lincoln, was always a welcome guest at the White House.*

# LINCOLN and the DOCTORS

By MILTON H. SHUTES

CHAPTER VI

AND NOW, after the interruption caused by these general theoretic contemplations, we may resume this narrative in some effort at sequence. The first recorded item of medical concern relative to the newly wedded pair is the advent of the first-born child, Robert Todd Lincoln. William E. Barton, D.D., in his "Life of Abraham Lincoln," calls attention to the fact that the first child was born exactly 270 days after that sudden wedding, which, he adds, "tells its own tale of immediate conception." William Barton mentions this because Lincoln entered marriage with a "thoroughly morbid hesitation." To quote him further: "We discover in Lincoln a man of domestic tastes and of pure life, a man who was upright in his relations with women before his marriage, was true to his wife, and [was] the father of a family of children, yet whose attitude toward marriage was influenced by a large degree of abnormality."

But the four children came along in "becoming regularity," Robert Todd on Aug. 1, 1843, Edward Baker on March 10, 1846, William Wallace on Dec. 21, 1850, and Thomas (Tad) on April 4, 1853. And so, whatever of abnormality may have existed in Lincoln's attitude toward the marriage relation, here is the evidence that he neither was lacking in virility nor was undersexed to the slightest pathologic degree.

No record can be found of medical attendance at the four births or at the death of the second boy, who died ten months before the birth of the third son, yet we know that Lincoln had friends who were good medical men, and Mrs. Lincoln had two kinsfolk, an uncle Dr. John Todd and a brother-in-law Dr. William Wallace, who were in active practice in Springfield. Her younger brother Dr. George Todd was a physician in Lexington, Ky., and she had grown up in that city, accustomed to the medical attention of Drs. Ben Dudley and Elisha Warfield. Being

temperamentally nervous and fearful, she would have been quick to rely on medical aid at the least sign of danger.

Pascal Hatch of Springfield recently uncovered the following note to his father Ozias M. Hatch, secretary of the state of Illinois, which was written by Mrs. Lincoln sometime during the late fifties and which illustrates her quick nervous concern but does not reveal the elusive name of the family physician:

Monday Morning

Mr. Hatch:

If you are going up to Chicago to day, & should meet Mr. L. there, will you say to him, that our dear little Taddie is quite sick, the Dr. thinks it may prove a slight attack of lung fever. I am feeling troubled & it would be a comfort to have him at home. He passed a bad night; I do not like his symptoms, and will be glad, if he hurries home.

Truly your friend
M. L.

It is of interest to note here that Dr. Wallace, prior to Lincoln's marriage, had occupied the very room of the hotel to which Lincoln brought Mary Todd. The doctor was a successful physician and a cultured gentleman, which is sufficient evidence to refute the implication of Edgar Lee Masters, that the Globe Tavern—at that period one of the leading hotels in Springfield—was not a proper place for a successful lawyer to bring a bride.

Among the medical men of Lincoln's early days in Springfield was the famous pioneer physician Dr. Gershom Jayne. If Mr. Lincoln did not employ him directly, at least he used the doctor's flatulence remedy, Jayne's Carminative. Dr. E. H. Merryman, previously referred to, had some reputation for pugilistic as well as for professional ability. He was a friend of the young Lincoln and like many another physician of the time suffered from unfulfilled political ambitions. Three years later there appeared the adventurous Dr. Garrett Elkin, who had served in the Black Hawk War, was later to enlist in the Mexican and the Mormon wars, and incidentally engaged in many little tilts of his own in Springfield. He was sheriff of Sangamon County about 1840 and a staunch liegeman of Dr. Henry.

Dr. William Jayne, a boy in his early teens when Lincoln came to town, grew up into manhood torn between two loves, but one finds him making good with both. He succeeded to the practice of his father Gershom Jayne and soon became well known medically and politically. In the November elections of 1860, he triumphed over a strong Democratic rival for a seat in the Illinois senate, and in 1861 President Lincoln appointed him, at the age of 35, territorial governor of what is now Montana, Idaho and the Dakotas. He returned later to the practice of medicine at Springfield, where he died in 1916, at the age of 90. From his boyhood days Dr. Jayne was an admirer of Lincoln, and he left many valuable contributions to Lincolniana.

Another of the early physicians, whose name is familiar to the reader, was Lincoln's old and unwavering friend Dr. Anson G. Henry. He was born in 1804, was a student under Dr. Drake in Cincinnati and was a member of the Illinois State Medical Society; he was also a prominent citizen of Springfield, an uncompromising Whig and Republican, and the active—perhaps too active—head of a commission of three to build the first Illinois statehouse. He had the temerity to fight by way of editorial columns with the brilliant Stephen A. Douglas and generally busied himself in politics. June 24, 1850, President Taylor appointed him Indian agent of Oregon Territory, and in 1861, President Lincoln appointed him surveyor-general of Washington territory. During those eleven years and the succeeding four, he kept up a correspondence with Mr. Lincoln, and after the assassination Mrs. Lincoln and Mrs. Henry continued the friendly letter writing in an exchange of sympathy in their mutual bereavement; for Dr. Henry, on returning to his home from New York City in the summer of 1865, was lost at sea off the northern California coast in the tragedy of the steamship "Brother Jonathan."

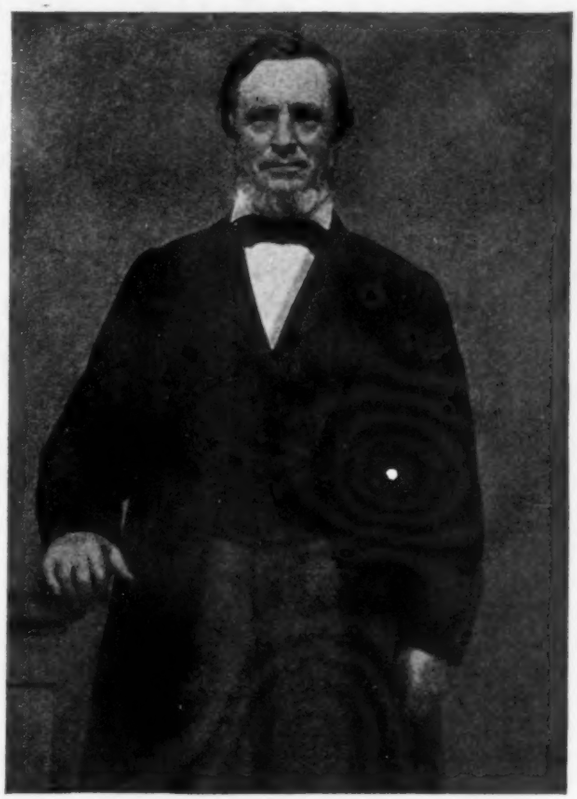
Dr. Henry was a loyal, lifelong friend of both Mr. and Mrs. Lincoln. During the perturbed courtship, he was always close to Mr. Lincoln, watching over him, advising him medically, and finally succeeding in his efforts to reunite the estranged couple. He had made two trips from his home in Olympia, Wash., to Washington, D. C., in 1863 and 1865, and each time he was a heartily welcome guest in the White House.

No friend was more utterly crushed by grief at sight of the dead president than Dr. Henry, and no one's sympathy to the stricken widow was so consoling and helpful. As a member of the family, he rode in the funeral procession to the Capitol and then remained with or near them until June, when he performed one last service for the harassed widow by writing a letter to the Lincoln Monument Association at Springfield, advocating in a tactful and conciliatory manner the acceptance of her insistent demand that her husband's body remain buried in Oak Ridge Cemetery instead of in the city plot approved by the committee. When Mrs. Lincoln heard, a short time later, of the death of the doctor, she immediately wrote to Mrs. Henry that "my sons and myself consider we have lost our best and dearest friend." And so he was to the distracted Mrs. Lincoln; and so he was—certainly of all those numbered in the medical profession—to Abraham Lincoln.

Other members of the early Illinois State Medical Society who were known to Mr. Lincoln were Drs. Alexander Shields, Meredith S. Helm, Charles Ryan, Rufus S. Lord, Sanford Bell, Fletcher Talbot, C. F. Hughes and E. S. Fowler. Dr. Samuel Long, also of good standing, aban-

doned the practice of medicine when President Lincoln appointed him consul at Havana. In this group, mention should be made of Drs. Henry C. Barrell and J. N. Dixon and of Dr. J. L. Million of Pleasant Plains, nearby.

Others whose names were found on the pages of Diller's day-book were Drs. A. Taappe, A. M. Browning, Raback, Morehead, Grismore, Price and Kyner. These men all frequented the place where Lincoln so often "loafed," and were unquestionably acquainted with him. Yet another Springfield friend was a Dr. A. W. French, with whom Lincoln took a course of lessons in German; but it is said that Lincoln soon wearied of the effort.



*Dr. Anson G. Henry*

Between 1840 and 1850, when cholera ravaged Illinois and yellow fever wormed its way up the Mississippi River, men of various "schools," from the homeopath and the eclectic to the herbalist and the itinerant Indian doctor, came to Springfield. The first homeopath was Dr. Ferdinand Kuechler who built up a large practice, especially among women and children. A little later, Dr. J. A. Vincent arrived and became mayor of Springfield. The first herb doctor was a Dr. Higgins and then came Dr. Freeman, who built the original St. Nicholas Hotel, and Dr. Henry Wahlgemuth who also made his way into the ranks of prominent citizens.

Outside of Springfield there was Dr. Robert Boal of Lacon, who presided, June 4, 1850, at the first meeting and organization of the Illinois State Medical Society. With him came Dr. S. G. Thompson. Lincoln already knew Dr. Boal well and had considerable correspondence with him of a political nature, relying on his aid, as he wrote, "because of your position and standing." Likewise, he knew and corresponded with Drs. William Fithian, Thomas Conant and Charles Wallace. Surely he knew the physician, Dr. N. S. Freeman of Farmington, Ill., who cared for his father Thomas Lincoln and his stepmother Sarah Bush Lincoln during their last years and days. Then, too, there was Dr. Richard F. Adams of Lee County, a staunch and conspicuous pro-Lincoln man! He was a skilful physician and a capable politician. He helped organize the Republican party in Illinois, was the first Republican to sit in the Illinois senate, and was the first on the roll-call of the combined house and senate meeting of Jan. 5, 1859, to vote for Abraham Lincoln for the United States Senate. During the Civil War he rendered devoted aid to President Lincoln in the Illinois legislature.

Further evidence of Lincoln's cordial relations with the doctors is afforded by the well known letter which, with a twinkle in his eyes, he wrote to Dr. (and later Judge) Franklin Blades. After his admission to the bar in 1858, Blades wrote to Lincoln, asking for the use of his name as a reference, but neglecting to explain his change of profession. Lincoln, being in doubt as to the identity of Dr. Blades, wrote him as follows: "I do not know whether you are Doctor Blades or not. If you are Doctor Blades, you may use my name; if you are not Doctor Blades, if Doctor Blades says you may use my name, you may do so."

Mention should be made also of Lincoln's friend Dr. Samuel C. Busey of Washington, who sat across from him at the boarding-house table of Mrs. Ann Spriggs in Carroll Row on First Street, where he lived as Congressman during 1848 and 1849. Great credit is due Dr. Busey for most of the available data concerning Lincoln's life in Washington while a member of the Thirtieth Congress.

When Lincoln first came to Springfield there were eighteen doctors located there. This number grew with the population, and of the number in and about Springfield and throughout the state there were a great many whom he knew socially, politically and casually. These men were medical school graduates and undergraduates, and some were schooled by experience in the corner drug stores. But to Lincoln, the politician, a doctor was a doctor, and medical advice was accepted with but little discrimination as he journeyed over the Eighth Judicial Circuit and about the state.

Isaac Diller, son of R. W. Diller, the Springfield druggist and good old friend of Lincoln, relates that during the Civil War his father unsuccessfully sought a position as hospital steward at the large military camp just outside

the city. He was refused for reason of inadequate medical training. In reply to his appeal, President Lincoln unofficially wrote back that as R. W. Diller had given him many a dose of medicine it would seem that he ought to be skilled enough to do the same for the soldiers.

Illness in his family, however, was cause for nicer discrimination in the choice of a physician. Mary Lincoln's uncle Dr. John Todd, one of the founders of the Illinois State Medical Society, was along in years, according to Isaac Diller, and probably was not employed in a medical capacity by the Lincolns. Mr. Diller states that Dr. William Wallace was his own family physician and he is quite sure that Dr. Wallace was also the Lincoln's family physician and that Dr. Helm was called at times. The Chicago *Tribune* on Jan. 11, 1861, referred to Doctor W. S. Wallace as Mr. Lincoln's family physician. Dr. Helm, a graduate of the Baltimore Medical College, had a fine reputation, especially in obstetrics; both men, as well as Dr. William Jayne, lived near the Lincolns. So we may infer that Mrs. Lincoln and the children were well cared for by competent medical men.

The second son, Edward, died of diphtheria on the morning of Feb. 1, 1850. Lincoln wrote his stepbrother that the boy had been sick fifteen days. At that pre-antitoxin day, diphtheria was a terrifying ordeal to all parents. "We miss him very much" did not express the Lincolns' deep, disconsolate sorrow. With Robert they left for Lexington where Mr. Lincoln came across a volume entitled "The Christian's Defense" by James Smith, D.D. This attracted his attention as the author was the minister of Springfield who had conducted the funeral services for his boy. After his return to Springfield, he sought an interview with the minister, who later stated: "I found him much depressed and downcast at the death of his son and without the consolation of the Gospel." Lincoln borrowed a copy of Reverend Smith's book and soon afterward rented a pew for Mrs. Lincoln in the First Presbyterian Church. This digressive story is interesting when considered in connection with Lincoln's more effective remedial turning to religion after the death of his third son William.

*(To be continued)*

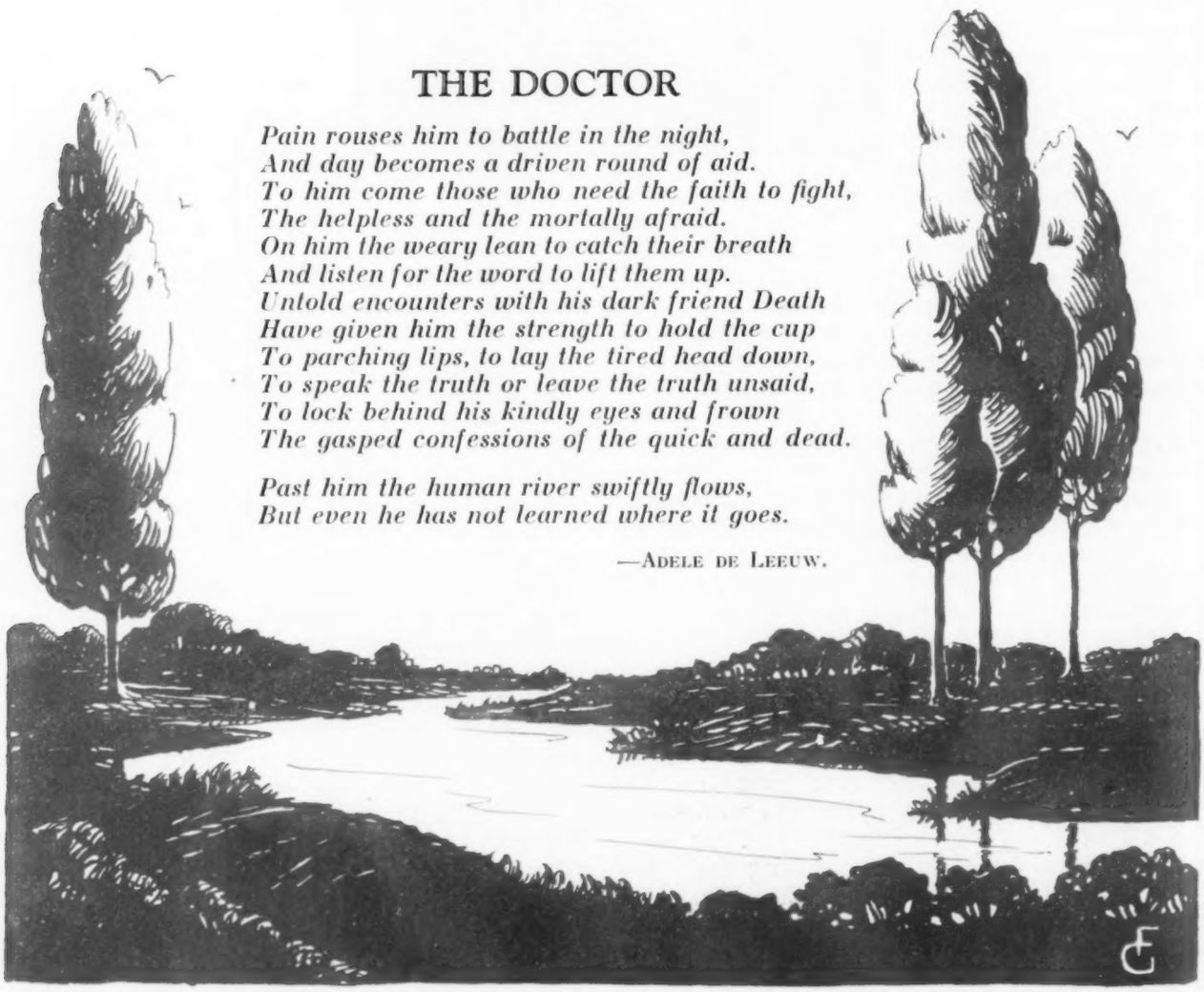
---

## THE DOCTOR

*Pain rouses him to battle in the night,*
*And day becomes a driven round of aid.*
*To him come those who need the faith to fight,*
*The helpless and the mortally afraid.*
*On him the weary lean to catch their breath*
*And listen for the word to lift them up.*
*Untold encounters with his dark friend Death*
*Have given him the strength to hold the cup*
*To parching lips, to lay the tired head down,*
*To speak the truth or leave the truth unsaid,*
*To lock behind his kindly eyes and frown*
*The gasped confessions of the quick and dead.*

*Past him the human river swiftly flows,*
*But even he has not learned where it goes.*

—ADELE DE LEEUW.



# Who Can Make the Most Noise?

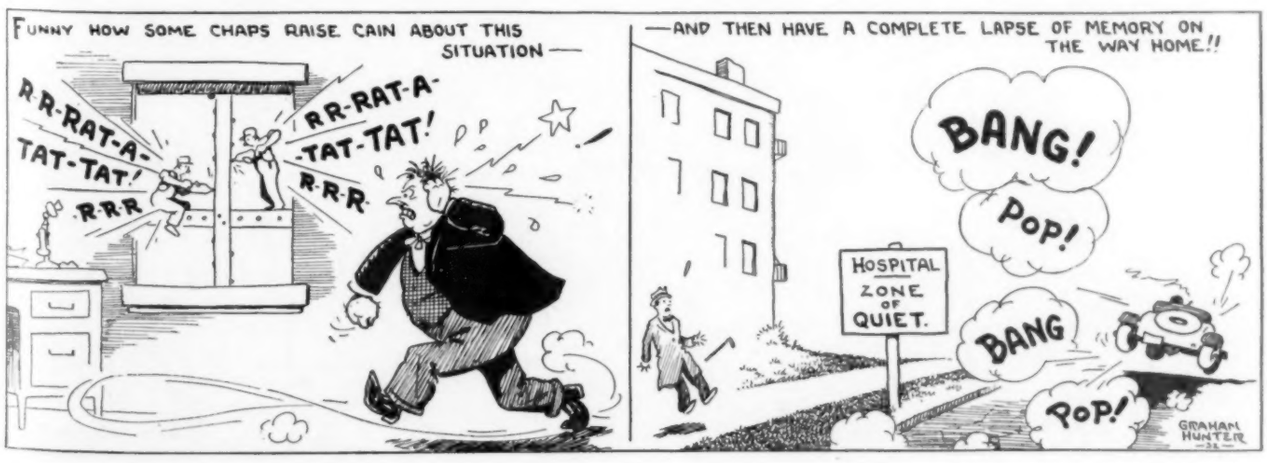
*By*

*J. F. Hammond*

A YOUTH with a cocked hat, a fur coat, and metal clips on his heels clanked through the lobby. He might have been practicing tap dancing but probably was not. An automobile passed, sounding a locomotive horn; every one jumped. A tug boat pulling a barge chugged and whistled on the river. A radio in the lounge drowned the conversation. The question seemed to be "Who can make the most noise?" City dwellers are saturated with all kinds of noises. Even the empyrean, once the realm of angels, has been invaded by noise. Stephen E. Slocum, a consulting engineer who recently wrote a book about noise and vibration, says that a horn for communicating with airplanes has been developed with a range of five miles. Noise, he declares, will vie with disease in a generation, unless the same mechanical ingenuity that has called the mechanical robot of the age into existence will also be able to endow it with a soul of quiet.

The growing menace of noise and vibration has elicited an emphatic protest in various parts of the world. Antinoise commissions have been organized in some cities, and in some countries antifatigue days are observed, to bring to the attention of the public the necessity of living without so much noise. Laboratories are engaged in experimental investigation of the effects of noise on the human body. Research has shown that sudden noise increases the rate of the heart and of respiration and the blood pressure of man and animals. Continuous noise causes the ear drum to become thicker and the joints between the small bones in the ear to become stiff. This, in the end, tends to produce deafness. Taxicab drivers exposed to street noise for long periods of time in New York are said to be growing hard of hearing. Boiler makers sometimes are similarly affected by the continuous din incident to their occupation. Sudden noises cause fear reactions and these cause muscular tension. It is difficult, if not impossible, for most persons to relax in a noisy environment. The nerves of the average city dweller are constantly stimulated by noise. He becomes extremely sensitive to vibration, and the consequences are lessened efficiency in his work and increasing irritability; in some instances, he becomes neurotic.

The first comprehensive measurement of the average noise in city streets was recently made by the Noise Commission of the City of New York. Their survey of more than 7,000 measurements of the intensity of noise at various places showed that there are many places in New York where a tiger could roar without being heard at a distance of 20 feet. Among 11,068 complaints received by the Noise Commission, 53 per cent concerned automobile traffic and rail transportation. Yet the automobile has been improved with respect to noise probably more than any other machine in general usage. When a machine operates noisily one knows at once



that it is poorly built or badly worn and in either case inefficient and wasteful. A large portion of the output of the radio is to many ears mere noise. And how the street cars bump and screech!

Edison said that city noise must increase and that the man of the future therefore would be deaf. But much of the present day noise can be and in time will be prevented. The prevention of noise is largely an engineering problem. The American Electric Railway Engineering Association has appointed a committee to study the problem of noise and vibration. Experiments are being made in some cities with noiseless street cars. The modern office building is insulated against vibration. The subways, one of the worst offenders, will soon learn that the subway roar can be reduced to a point at which it is hardly objectionable. The smoke nuisance, against which the public protested a few years ago, has been largely eliminated, and the public has begun a similar protest against noise, which will eventually yield to its demand for noise abatement.

---

# National Child Health Day

## *May 1, 1932*

WITH THE advent of May Day, flowers spring from the moist soil, and children's voices drown out the persistently echoing murmurs of a winter just passed. Mothers the world over revel in the thought of children at play under the healthful rays of warm sunlight. Is it any wonder that May Day is each year by proclamation of the President of the United States also Child Health Day?

Standards of living have fallen appreciably within the last two years, and in many communities children are being seriously affected. Hence it is particularly timely that the attention of the entire country is turned to the health of its future citizens. Walter S. Gifford, director of the President's Organization on Unemployment Relief, recently commented:

"Public machinery directed to the protection of childhood, such as public health, welfare agencies, educational systems, should be the last to be affected by measures of economy."

The National Child Health Day Committee in cooperation with the American Child Health Association offers as the keynote of May Day in 1932 the following statement: To focus the spirit of this year—which is a spirit of unselfishness, of sharing, and of responsibility toward one's neighbor—on the needs of children in order that

Each child may be sheltered in its own home and share secure family life during 1932.

Each child may have the essential food elements in each day's diet during 1932.

Each child may have an adequate amount of clean and safe milk in 1932.

Each child may have plenty of sunshine, sleep, rest and recreation.

Each infant in 1932 may be born healthy, of a healthy mother who will live to love her child and take care of her family.

# Diabetes ---

## *A Controllable Disease*

By BENJAMIN JABLONS

THE intensive campaign that is being waged between the candy interests and the tobacco interests has helped to emphasize the importance of certain foodstuffs in the maintenance of health.

It is now known that diabetes mellitus, or "sugar disease" as it is more popularly known, is due in a great measure to overstrain of that important gland of the body, the pancreas, which, together with the liver, has the function of storing and utilizing all sugar-containing substances. I am purposely using the term sugar-containing, instead of starchy or carbohydrate, substances because science has discovered that sugar can be obtained from the three basic elements of food. In other words, it can be obtained from carbohydrates and from protein or meat substances, and it constitutes 0.1 per cent of the fat-containing substances.

When the complicated chemical factory, the body, elaborates the food taken in and breaks off the sugar-containing fraction of the food, the carbohydrates yield 100 per cent sugar, the meats 58 per cent, and the fats 10 per cent. This split-off sugar is stored in the liver or the muscles in a form that cannot be immediately utilized. By virtue of a ferment-like substance known as insulin, which a certain portion of the pancreatic gland manufactures, this stored, or shall we say "frozen," sugar is utilized to produce the energy and heat necessary for the vital processes of living. If this ferment is lacking or is produced in small quantities, or if, when it is produced in normal quantity it is prevented from serving its proper function, a condition results wherein the body is unable to utilize or burn up its sugar. It also is unable to convert it into glycogen, which is the starchy material stored in the liver and which is reconvertible into sugar. The resulting condition is known as diabetes mellitus, because of the presence of sugar which cannot be stored or utilized, and therefore increases far above the normal amount in the blood and is thrown off in the urine.

The excessive amount of sugar which circulates, as well as the excessive amount which must be eliminated through the kidneys, produces a deleterious effect, resulting in the degeneration of important organs. Under these conditions it is impossible completely to burn up or oxidize the fat that is taken in as food or stored in the body as avoirdupois. Under these conditions the human organism finds itself suddenly saturated with half-burned fats known as fatty acids; these produce the condition known as acidosis, which ultimately results in coma. This is the cause of death in diabetes in 80 per cent of the cases. Insulin helps to complete the burning of these fatty acids and thus leaves no smoking or partly burned substances to poison the body.

The discovery that they have diabetes is made by most diabetic persons as a result of a periodic health examination by their physician, a periodic life insurance examination or examination of the urine. Others, however, make the discovery because for no special reason they develop an intensive thirst, note marked itching or have a voracious appetite. The food they eat does not

seem to supply them with the necessary energy for their daily tasks. There are others who suffer from constant aches and pains, or marked weakness, for which there appears to be no definite reason, but when they have their blood examined or a urinalysis made they are found to have an abnormal amount of sugar. Others complain of having to visit the bathroom frequently, which interferes with their sleep at night. All these symptoms are due to the fact that the sugar fraction of the food that they ingest merely circulates through the body instead of being stored and utilized. The concentration of the blood removes water from the tissues and produces great thirst, and the amount of water consumed necessitates frequent emptying of the urine from the bladder.

There are many ways of avoiding diabetes. The best and most important method is not to indulge excessively in starchy substances. It is estimated that the average normal human being eats about five times the amount of starchy food necessary for the maintenance of the normal metabolism of the body. In other words, the daily consumption of starch or sugar, which should be from 100 to 150 grams per person, is, in reality approximately from 500 to 600 grams. There are many persons who exceed the average 500 grams a day. They belong to the group who tend to become obese, and it is particularly among the obese individuals that diabetes occurs.

Alexander Pope's injunction, "Man, know thyself," is the guiding principle in this disease and should be the incentive for frequent periodic health examinations.

### *Emotional Strain Should Be Avoided*

Diabetes is not a racial disease, as was at one time thought. It was believed to affect exclusively, or almost exclusively, the Jewish race, whereas Negroes were comparatively exempt. Today, the Bureau of Vital Statistics of the United States has proved that the frequency with which diabetes is encountered in the Negro race has increased to a tremendous extent. Vital statistics prove also that among Americans, particularly among those who live in suburban areas of large cities, the mortality rate in diabetes is as great as, if not greater than that formerly recorded for the Jewish populace. Authorities in this field of work have been forced to conclude that diabetes is essentially a disease due to overindulgence in food. Improvement in the economic condition of the Negro race and other racial groups has increased the tendency to eat to excess, and the increased desire for sweets has played an important rôle in increasing the incidence of diabetes. Today instead of diabetes being sixteenth on the mortality lists it has advanced to ninth place, and there is no evidence that the frequency is diminishing.

Since Minkowski, thirty years ago, found that dogs in which the pancreatic gland had been removed or destroyed excreted urine containing sugar, it has become more or less accepted by most authorities that this gland when diseased causes diabetes mellitus. The effect of worry on the production of diabetes has been explained on experimental grounds. It has been shown that when the sympathetic nervous system is markedly upset, as occurs in certain emotional states, or when the brain is experimentally affected, the blood vessels supplying the pancreatic gland with blood become markedly narrow. This gland then suffers from a lack of blood, and a temporary condition results, similar to that previously discovered in dogs from which the pancreas had been removed. It is also possible for certain infectious or contagious diseases to produce a degenerative influence on this gland through the poisons that develop as a result of the disease. This factor explains the occurrence of diabetes in the young, in those who are prone to emotional shock and in those who strain this gland by excessive indulgence in starchy and sweet foods.

A great deal could be done to prevent the development of diabetes if persons who do indulge excessively in food would submit, periodically, to a complete physical examination by a competent physician. There is a hereditary tendency toward diabetes that is often discovered only as the result of a casual examination of a urinary specimen. Much can be accomplished in the prevention of diabetes by periodic health examinations including an examination of the urine. If possible an examination of the blood should be made at intervals, for by this means the presence of an abnormal amount of sugar might be revealed sufficiently early to prevent the development of this dreaded disease. Freedom from emotional strain and worry cannot be too strongly emphasized as a preventive measure.

Owing to the discovery of insulin and the increased intelligence of the public regarding dietetic problems, the treatment of diabetes has become much simplified. It is probably not out of place to emphasize here the fallacy that many people believe today that insulin is habit-forming or that its use may lead to serious trouble of the heart or other vital organs. In cases in

which insulin is essential in the treatment of disease, it is just as essential as food and is no more habit-forming than food. When the condition admits of the temporary use of insulin, the latter plays a rôle similar to a cane or crutch that is used temporarily to allow the injured limb to restore itself to its former vigor and function. Insulin should never be used without the supervision of a properly trained and competent physician who checks on its use by frequent laboratory tests of the blood and urine. It is also fallacious to believe that because the patient is receiving insulin he can eat as he formerly did.

*Precaution Prevents Fatal Complications*

Insulin, diet control, and skilled supervision form the three legs of the tripod on which rest the safety and comfort of the patient being treated. If any one of the three is wanting, danger threatens. It is therefore essential that the patient should acquaint himself with the elementary facts of dietary laws, the caloric value of common foods and, what is more important, the carbohydrate, fat and protein content of the foods that he eats. In this way the patient will not starve the body of the essential quantity of food or overburden the already overstrained pancreatic gland. Moderate exercise in addition to the aforementioned suggestions helps materially to utilize the sugar of the body, except when the pancreatic gland has ceased to function.

Clinical experience has convinced many physicians that if diabetes is properly taken care of it may well be classed today, since the discovery of insulin, as a controllable disease. With regard to insulin, one may well say in the words of Joslin: "While insulin does not cure diabetes it is a priceless gift to the severe diabetic provided he be intelligent and faithful." In this disease, more so than in any other, intelligent cooperation with one's physician is more than half the battle. Premature death due to complications can be avoided if precautions are taken.

One of the most common complications is gangrene of the extremities, which is due primarily to a hardening of the blood vessels and a narrowing of their caliber. In this way the blood supply to the toes, feet or hands is diminished. This condition, coupled with carelessness on the part of a chiropodist, a manicurist or the patient himself, may have serious results, for if a cut or injury is sustained it becomes quickly infected and, owing to the lowered resistance, gangrene and blood poisoning may follow. Reasonable care and scrupulous cleanliness will prevent the occurrence of this dreadful complication and avoid the necessity of amputation or extensive treatment.

Arteriosclerosis, or hardening of the blood vessels, is not always limited to the vessels supplying the extremities with blood. The blood vessels of the brain, the heart or the kidney may likewise become affected and may undergo degeneration. When the general system becomes affected, high blood pressure may result. This condition, plus degenerative changes in the blood vessels, may produce a stroke if the brain is involved, may cause sudden death if the heart is affected or may lead to Bright's disease if the kidneys are involved. These blood vessels should not be overtaxed.

Excessive sugar in the blood is followed by an excessive saturation of the blood with droplets of a fat known as cholesterol. This plays an important part in the production of the hardening processes in the blood vessels, which become greatly thickened and infiltrated with fat and lime. To avoid this, the individual must at all times be on a proper diet sufficient for all purposes, without any excess sugar or fat.

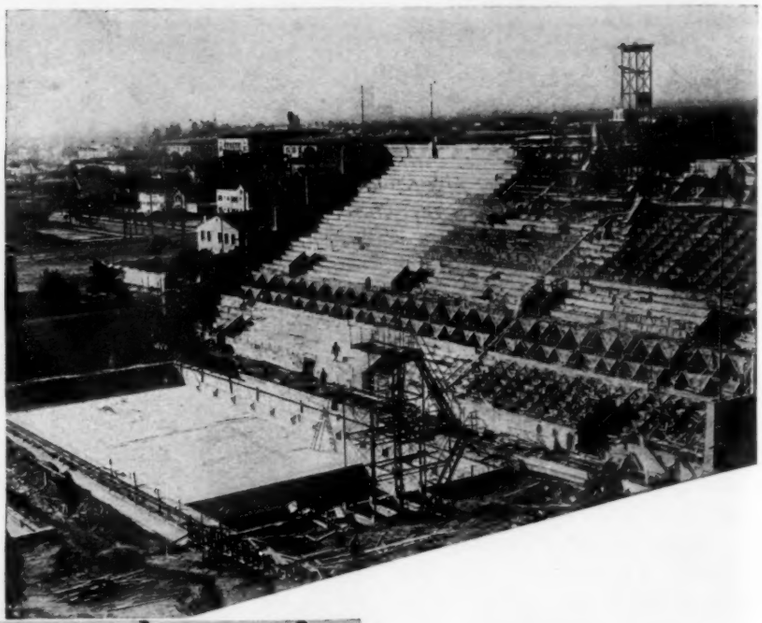
That the diabetic patient must scrupulously avoid overweight is an almost axiomatic principle in the treatment of the disease.

The early recognition and proper care of infection in any part of the body, such as the mouth, nose, throat, lungs or intestines, prevents not only fatal complications but also a marked aggravation of the disease, produced by the action of bacterial poison on the pancreas and liver. Thus one sees how important it is to be examined at frequent intervals in order to maintain a normal status quo. In diabetes particularly, an ounce of prevention is worth many pounds of cure.

In the treatment of diabetes it is always wise to know the tolerance for a certain amount of starch or sugar. This is often determined by having the patient while in the fasting state swallow a certain amount of sugar or its starch equivalent, in water, and then noting the reaction of the blood and urine. If the amount taken in is borne well, then the blood and urine after four hours should contain the same amount of sugar as they contained previous to the test. From such a test and from the standard requirements of the body for a given height and weight it is possible for the physician to calculate accurately the amount of starch or sugar, protein, fat, minerals and vitamins necessary to maintain health and furnish energy for the daily tasks; if the tolerated amount is too low, the physician can calculate the amount of insulin required to help the body consume this excess of sugar.

# Previews of the Olympic Games

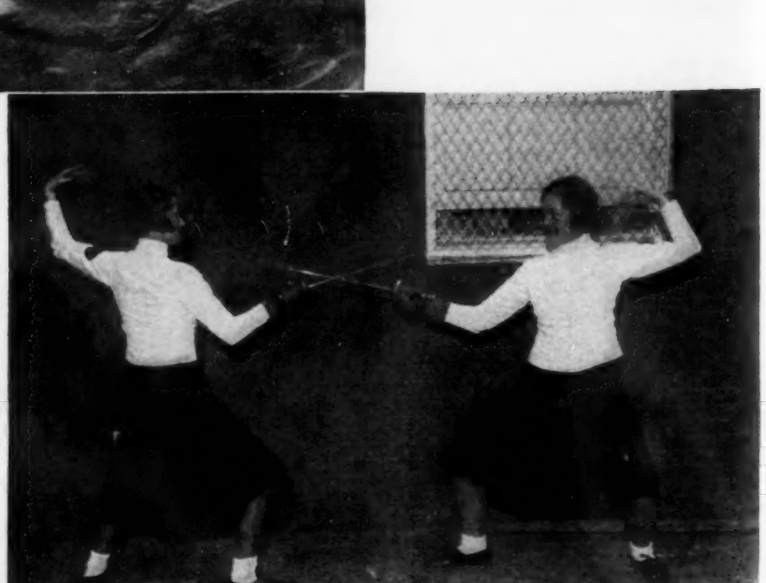
Pictured to the right is a general view of the partially completed Olympic swimming stadium which will be used this summer for all aquatic events of the 1932 Olympic games. Situated in Olympic Park in Los Angeles, it will accommodate 10,000 spectators.



AT WATER POLO
JOE RUDDY
is still able to teach
his son a few
tricks of the game.
Ray Ruddy,
a former Olympic
team star, will
compete this year.

## *"AT SWORDS' POINTS"*

Two New York women compete for positions on the United States Olympic fencing team. The fencers are Miss Dorothy Locke, who was runner-up for the women's national fencing championship in 1931, and Miss Marion Lloyd, the women's fencing champion.



*Photos by International Newsreel*

# Some Newly Discovered Diseases of the Blood

By

ROBERT A. KILDUFFE

*Richard Bright, who first described the disease that bears his name.*

THE discovery of a new disease is always an event of great interest in the world of medicine because physicians must learn how to recognize and treat it as best they may until further studies have determined its cause and its method of attack, for on these facts the evolution of a rational method of treatment depends.

Frequently it is not the disease itself that is the real discovery, for it may have existed for ages without being truly separated from other conditions; or while it may have been more or less completely recognized as an individual or distinct condition, it may have been erroneously named or defined because information of its true nature remained to be discovered.

Bright's disease, for example, was not a new disease in the sense that it did not exist before Bright described it, but it was not until he published his series of observations, together with the masterly deductions he made from them, that this chronic disease of the kidney became a clear-cut entity.

This is true also of many other conditions, among them some "new" blood diseases which, because of a better understanding of their manifestations, only recently have been clearly described. Among them is a condition spoken of as infectious mononucleosis, and another which because of its peculiar effect on certain of the white blood cells is called agranulocytosis.

The disease now known as infectious mononucleosis is probably the same condition which in 1889 was spoken of as "glandular fever." The fact that it could exist under two such dissimilar names arises from a natural and logical sequence of events.

The recognition of disease depends on the recognition of its symptoms or manifestations and, as one of the most striking manifestations of infectious mononucleosis is a diffuse and generalized enlargement of the lymph glands—which are more properly termed lymph nodes—it is not surprising that the disease should have been called glandular fever, especially when it is recalled that at that time methods for the systematic examination of the blood were either new or yet to be discovered.

As such methods were evolved it became recognized that the disease was accompanied if not characterized by definite changes in the blood which, in all probability, have a definite connection with the glandular enlargements from which the earlier name of the disease was derived.

Mononucleosis is a disease with characteristics so striking that it is strange it should have been so long confused with others to which it presents a more or less superficial resemblance.

While at first it was thought to be a disease peculiar to children, it is now recognized as a

condition seen in young adults, usually in the early twenties. Like many other diseases, it begins with languor, headache, fever and, perhaps, chills. These are soon followed by sore throat, hoarseness and cough. The most striking external evidence of the disease, however, makes its appearance in the first week in the shape of swelling and tenderness in the lymph nodes. This may be seen only in the neck or cervical region, or it may be more diffuse and involve also the lymph nodes in the armpit (axillary region) or those in the groin (inguinal region) or even the isolated nodes in the bend of the elbow (epitrochlear region).

As lymph nodes are scattered throughout the interior as well as on the surface of the body, when the deep nodes are affected there may be abdominal pain and tenderness causing the disease to be mistaken at first for appendicitis.

An examination of the blood discloses definite changes in the leukocytes, or white blood cells, which are found to be increased in total number. When the individual leukocytes are studied under the microscope it will be seen that this increase in number is due not to a general increase in number of all kinds of leukocytes, for the granular forms may actually show a decrease in number, but to the appearance in the circulating blood of large numbers of nongranular leukocytes of lymphoid type—the so-called monocytes.

### *Some Confusing Similarities of Symptoms*

These evidences of disease last for from ten to twenty days, when the symptoms decline and the patient proceeds to an uneventful recovery.

While the exact cause of this disease remains to be discovered, there is logical basis for the supposition that it is due to an infection with some as yet unknown agent; hence the name infectious mononucleosis.

One of the conditions with which this disease has undoubtedly been confused in the past and which itself has been clearly described only within the last ten years is agranulocytosis, or agranulocytic angina.

While this condition was at first described as occurring only in women of middle age, at least fourteen cases have been reported in males, so that, while the great majority of cases are found in women, there are exceptions to the rule.

The disease is an acute one beginning suddenly with fever and sore throat due, as will be found on examination, to the presence of rapidly spreading ulcers on the gums, tonsils and tongue. Some degree of jaundice is not uncommon.

While it is apparent that in some respects this condition bears some resemblance to infectious mononucleosis, it is significant that in agranulocytosis there is no enlargement of the lymph nodes and the blood picture presents distinctive differences.

In the first place, in agranulocytosis there is no increase in the total number of white blood cells (leukocytosis) but, on the contrary, a decrease or leukopenia. While this is a rather constant finding it is not the chief characteristic effect on the blood, which can be noted only on a study of the kind of white blood cells present. When such a study, or "differential count," is made, it is seen that the granular forms of leukocytes have almost or even entirely disappeared from the blood, being replaced by an overproduction of lymphocytes, or nongranular forms.

The disease is hence seen to be one in which the major effect is exerted on the bone marrow, which is thus unable to produce normally the granular leukocytes that it should furnish to the blood.

Agranulocytosis is a severe and acute condition with a high mortality. While it has only recently been described with sufficient clarity to render its differentiation from similar conditions possible, the attention thus focused on it has given rise to a discussion as to whether it is really a separate and distinct disease or merely a rather consistent and characteristic expression of a bone marrow depression affecting the production of granular leukocytes which may follow various pathologic stimuli.

Medical research is thus confronted with still another problem for solution to which, we may hope, the answer eventually will be found.

Both of the "new" diseases of the blood that have been sketchily outlined are characterized by the fact that they and their effects are concerned with the leukocytes, or white blood cells. An interesting disease of the blood which has been described within relatively recent times is one the effect of which is shown by a change in the shape of the red blood cells.

### *Sickle Cell Anemia, a Hereditary Disease*

The normal human red blood cell, or erythrocyte, is roughly circular in shape, this characteristic being constant except in grave or long-standing anemias, when there is an entrance of imperfect red blood cells into the circulation as an expression of haste or fatigue on the part of the blood-making apparatus.

Such cells, because of the varied and often bizarre shapes they may take, are called poikilocytes, and the condition is spoken of as poikilocytosis (many-shaped cells).

While the disease is characterized by the presence of red blood cells of abnormal shape, it has a distinct and diagnostic peculiarity in that these misshapen cells always show the same

kind of deformity. They are half-moon in outline, or, as they were originally described, "sickle-shaped." The disease has therefore been called "sickle cell anemia," "sicklemia" and "meniscocytosis."

There is little definite information about this condition. It is known to be chronic and hereditary, and so far has been encountered only in the Negro race.

The disease is often first detected when the patient applies for treatment of ulcers of the leg. When blood examinations are made, however, it is soon found that a large number of the red blood cells show the characteristic sickle shape. If a drop of fresh blood is sealed between two thin glass plates and allowed to stand, a great many more of the cells take on the sickle appearance.

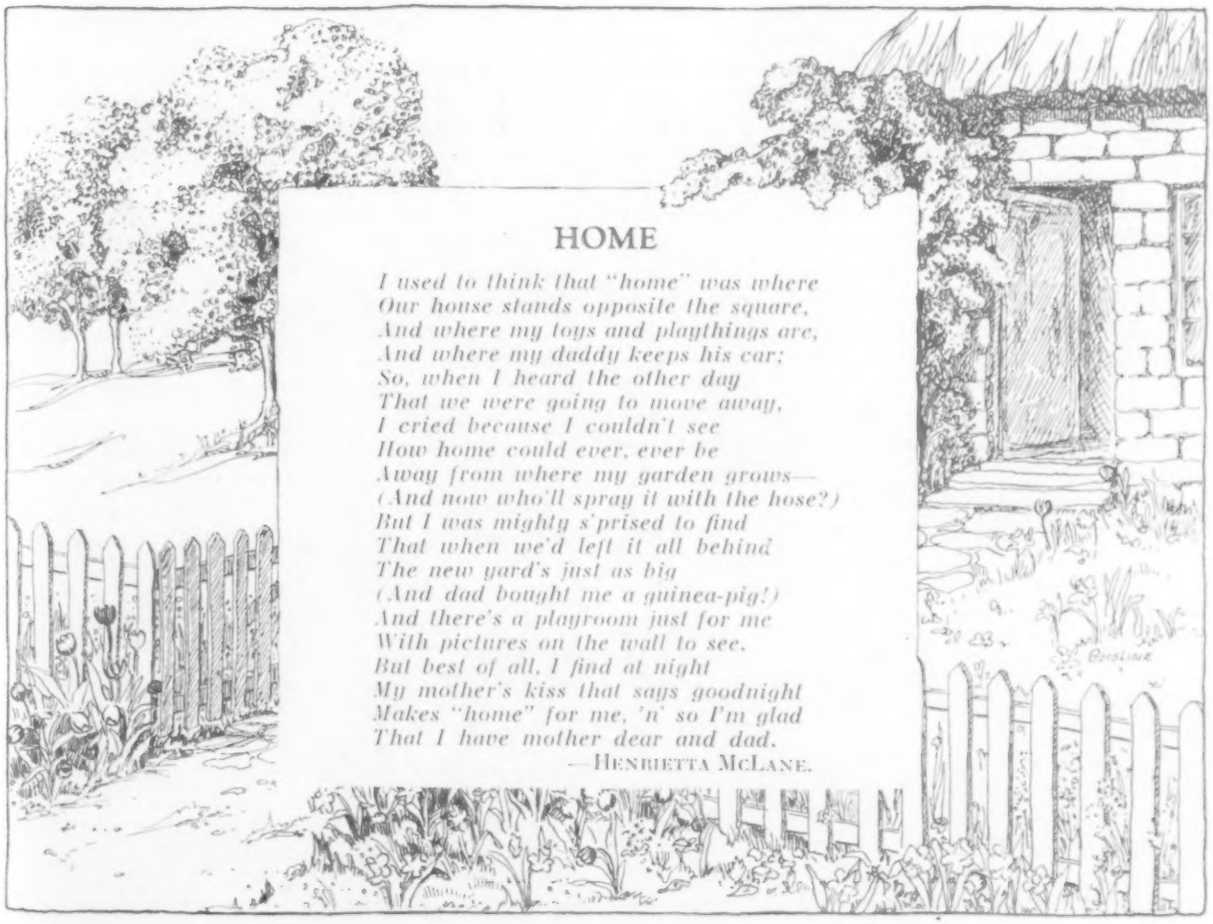
If such a preparation is allowed to stand in an incubator at body temperature overnight, when it is examined in the morning only the normally rounded cells remain. The sickle cells have not returned to the normal shape; they have disappeared.

This rapid destruction of the sickle cells is in all probability the underlying reason for the anemia which forms so pronounced a feature in the disease and for which no satisfactory or specific method of treatment has been found. Several reported studies indicate that while the disease known as sicklemia is infrequent, the occurrence of sickle cells in the blood without any other evidence of abnormality is not at all uncommon.

Thus, in one investigation of 400 Negro children in a large city the presence of sickle-shaped erythrocytes was demonstrated in 7.5 per cent. Of fifteen mothers of this group, eleven showed sicklemia but were otherwise well. In another series of 600 Negro patients the sickle-cell deformity of the red cells was found in 7.2 per cent. Apparently the sickling may be a fairly common abnormality, although the actual occurrence of the disease as shown by the other symptoms is relatively uncommon.

The condition in symptomless cases has been called "latent sickle cell anemia," although it does not seem that the eventual appearance of symptoms is inevitable. In any event, still another disease has been added to the already long list of those for which the doctor of today must be on the lookout.

---



## HOME

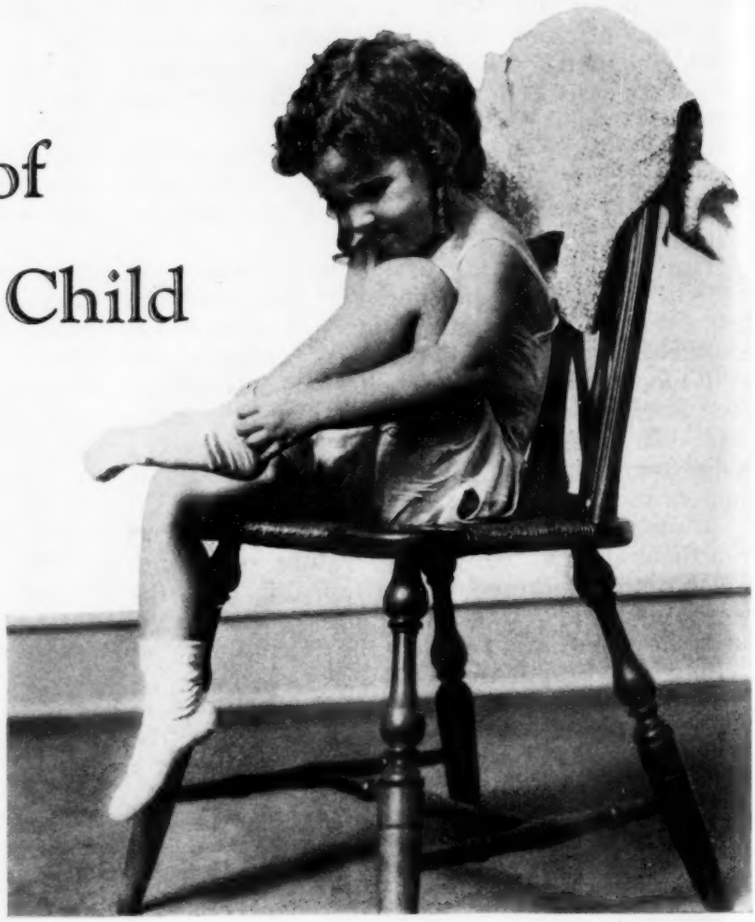
*I used to think that "home" was where*
*Our house stands opposite the square,*
*And where my toys and playthings are,*
*And where my daddy keeps his car;*
*So, when I heard the other day*
*That we were going to move away,*
*I cried because I couldn't see*
*How home could ever, ever be*
*Away from where my garden grows—*
*(And now who'll spray it with the hose?)*
*But I was mighty s'prised to find*
*That when we'd left it all behind*
*The new yard's just as big*
*(And dad bought me a guinea-pig!)*
*And there's a playroom just for me*
*With pictures on the wall to see.*
*But best of all, I find at night*
*My mother's kiss that says goodnight*
*Makes "home" for me, 'n' so I'm glad*
*That I have mother dear and dad.*

—HENRIETTA MCLANE.

# The Wardrobe of the Preschool Child

By

ALICE LAWTON



*H. Armstrong Roberts*

CLOTHING at the preschool age (from 2 to 6 years) as at every other age should be chosen to meet the activity and educational needs of the child as well as to provide him with garments that are attractive and serviceable.

The child's clothing must be comfortable. All his garments, especially play suits, should permit freedom and natural movement of the body. Now that outdoor exercise is being emphasized more and more, clothes that will keep the child warm on a cold day and still allow freedom in play are in great demand. Garments should be of light weight, as too heavy clothing does not encourage play and may cause posture defects. The warmth of a fabric depends on weave and finish quite as much as on weight. The most desirable fabrics are warm, light in weight, soft, pliable, moisture-proof as far as possible, and closely woven or knitted. A soft, closely woven, fuzzy cloth may be much warmer than a harsh, smooth, leathery fabric. Sweater suits are elastic and fit snugly, but are less warm than woven ones because the stitches are far apart and the wind can blow through. One is liable to dress children, particularly babies, too warmly. As one doctor says, the body is like the engine of an automobile, and the skin is the radiator. If the clothing is too heavy, the body becomes overheated just as the engine does if there is not sufficient radiation.

A mother should consider a number of points in the selection and making of clothes for the preschool child. She should choose clothing simply but attractively made of durable material that can be easily cleaned or washed. She should realize that a child, after reaching the age of 2 or 3 years, likes to learn new activities and to be independent. A mother should keep this in mind when selecting suits and dresses. Simple front openings with buttons and button holes large enough to be easily handled, and always in the same convenient place, make it possible for children to dress themselves at an early age. In order that the child may easily seat himself on the toilet without help, drawers and trousers should have long side openings. If long sleeves are used, the cuffs should be large enough to enable the child to roll up his sleeves when washing his hands.

A child should have pockets in every garment, whether it is a dress, a suit or an outdoor wrap. Pockets afford a place for stowing away "valuable" string, pebbles and small toys as well as a place in which to tuck the handkerchief. Three-year-olds soon learn to use a handkerchief if it is in a convenient place, but if it is crammed into a mitten or up a sleeve they will not take the time or the trouble to hunt for it.

By being given for his own use the bottom drawer of a dresser and low hooks in a closet, the child may also be taught early in life to take care of his clothes.

Besides self help there are other points about a child's wardrobe that affect his mental development. Clothes influence the character and happiness of children. Many believe that a boy

cares little about appearance, but this is a mistaken idea as may well be seen the instant a boy's soiled or outgrown clothing is exchanged for a clean, comfortable and attractive suit. A child becomes more or less self conscious after the third year, and a general sense of well being is then essential to the development of his self respect and self confidence.

The preschool child's posture is greatly influenced by the type of clothing he wears. One of the greatest faults consists in wearing shoes and stockings that have become too small for the growing feet. It is said that about 50 per cent of all men examined for service during the war had trouble with their feet. These difficulties were for the most part preventable. If a child's shoes and stockings are properly fitted when he is small, he will not have "foot troubles" when he is grown. I should suggest the buying of shoes and stockings a half inch longer than the foot. The inner line of the shoe should be straight and the heel low and broad; the sole should be flexible to fit the arch. If long garters are being used, see that they are made of elastic that has plenty of "give" to it. Garters should not be hung from the front of the waist, as they tend to pull the shoulders forward and down, but should be fastened well back on the hips. The underwaist should have straps stitched on in the back and crossing just between the shoulders. This will bring the weight on the shoulders near the neck. Round garters may be harmful, for in order to hold stockings up they must be tight, and unless very carefully fitted they are liable to pinch the child and to interfere with the circulation of the blood.

Warm weather will soon be here and you mothers will be selecting your children's clothes for hot days. I should like to tell you a little about a sun suit ensemble as described by the Bureau of Home Economics in Washington. A pair of shorts for a boy and a comfortable pair of French panties for a girl, buttoned on to a waist made of ecru cable net, are just right for play in the sand pile, and a child needs merely to put on a matching dress or overblouse to be appropriately clad for the street.

Children love bright colors, and their delight in them can be used to advantage in the selection of outer garments. Motorists often fail to see children as they dart unexpectedly across the street, because the usual colors for their outside wraps, such as gray, tan, brown, navy blue or black, blend in with the background, whereas bright blue, green, red and orange may provide a "safety zone" around the children.

A child's clothes should teach him appropriateness—the right clothes for the activity before him. Give him play clothes for play, a change to something fresh and clean for supper, and night clothes for sleep. He can then forget his clothing in the thing he is doing.

Good taste is learned by experience with nice things from babyhood.

---

# MOTHER'S DAY-1932

A RECENT editorial in *The Journal of the American Medical Association* states that "proper prenatal care and adequate obstetric care will lower greatly the mortality and morbidity rates in any group."

The work of the Maternity Center Association in New York bears witness to the truth of this statement, for its investigations show that two thirds of the maternal deaths are preventable. The objects of the Maternity Center Association are (1) to teach the public the vital importance of adequate maternity care and (2) to secure, in cooperation with all existing agencies, such care for all expectant mothers. The association has functioned for seven years, and a survey shows that only one third as many deaths occurred among mothers receiving its care as among other mothers in the same section of the city.

The prospective mother should have the benefit of competent medical advice and attention. Her food, clothing and daily activities should be chosen carefully, the health needs of mother and child being kept constantly in mind.

In honor of Mother's Day (May 8), the association plans a nation-wide Mother's Day Campaign to obtain better maternity care for expectant mothers. "Special efforts are to be made in 1932," the association announces, "to awaken prospective fathers to the fact that a well baby and a healthy mother require more than simply to let nature take its course."

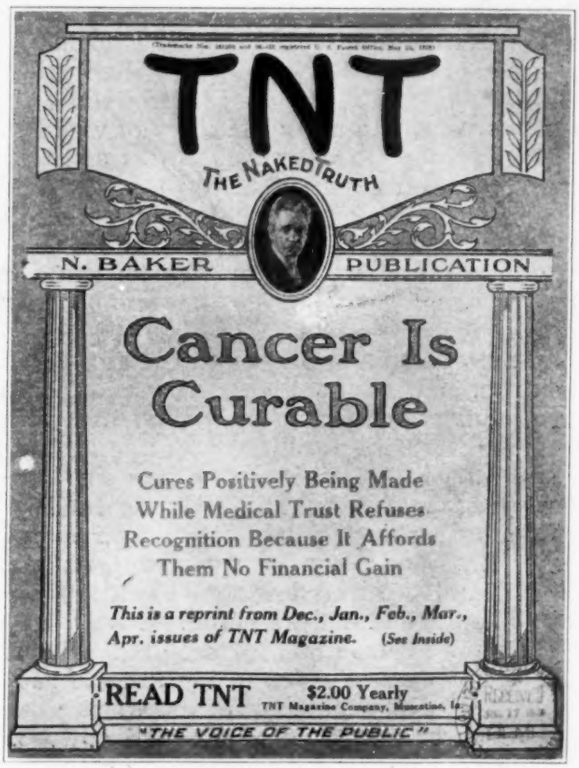
# Norman Baker vs. The American Medical Association

*By Arthur J. Cramp*

THE exploits of Norman Baker of Muscatine, Iowa, who used to own a radio broadcasting station and promote an alleged cancer cure, were exposed, editorially, in HYGEIA for May, 1930, and also in *The Journal of the American Medical Association*, for April 12 and April 19, 1930. As a result of these publications, Baker brought suit for libel against the American Medical Association, asking one-half million dollars in damages. This case came to trial in the federal district court in Davenport, Iowa, on February 9, 1932, and continued for a period of nearly four weeks. Voluminous testimony was offered by the American Medical Association, both through physicians who went on the stand as experts and by scores of depositions that had been gathered by the Association from various parts of the Middle West; much testimony was also put in by Baker. On March 3, the jury returned a verdict for the American Medical Association.

The case was heard before Federal Judge Gunnar H. Nordbye of Minnesota. In this connection, Norman Baker's weekly paper, the *Midwest Free Press*, prior to the trial expressed the editorial opinion that because the case was going to be heard before a judge who was coming from Minnesota, Baker would "not get all that's coming to him." To quote:

> "We fear he [Norman Baker] will not get all that's coming to him—Judge Dewey was to hear the case and at the eleventh hour now announces a judge from Minnesota coming to try the case—that may be O. K. but WHY WE ASK, is it necessary to go away out of our district to secure a Federal Judge—we wonder how Dr. Mayo, who is a power in Minnesota would like it if he were in Mr. Baker's place and an Iowa judge from Muscatine section would hear the case—YES WE WONDER—


TNT
THE NAKED TRUTH
N. BAKER
PUBLICATION
Cancer Is Curable
Cures Positively Being Made While Medical Trust Refuses Recognition Because It Affords Them No Financial Gain
This is a reprint from Dec., Jan., Feb., Mar., Apr. issues of TNT Magazine. (See Inside)
READ TNT
$2.00 Yearly
"THE VOICE OF THE PUBLIC"

*Greatly reduced reproduction of the cover of Norman Baker's Magazine T N T. In it, and in reprints of it, Baker declared that cancer had been conquered, and published details of alleged cures which investigation proved to be not cures but deaths.*

> Mr. Baker's formulas have accomplished more than Dr. Mayo ever did for cancer, and Baker will have to fight many years yet to educate the ignorant prejudiced and lazy thinking ones who are dominated by organized medicine." [Capitals as in the original.—A. J. C.]

The implications in this statement are fairly obvious.

### *Baker's Enterprises*

Baker's original enterprises seemed to have been wholly in the commercial field. He sold cigars, radios, storage batteries, alarm clocks, and many other things, advertising his wares through catalogs, his magazine *T N T (The Naked Truth)*, and over his radio station, KTNT.

Baker had two (and, for a short time, three) alleged treatments for cancer that were being given at Muscatine in the building that was known as the "Baker Hospital": first, a treatment for "external" cancer, an arsenic powder exploited by Harry M. Hoxsey, whose methods were dealt with in *The Journal of the American Medical Association* in 1926 and 1929. Hoxsey brought suit against the American Medical Association for libel but after interminable delays on Hoxsey's part, the court threw the case out. The other "treatment" was that of

injections for "internal" cancers of one Charles O. Ozias of Kansas City, Mo. When the American Medical Association, through its Bureau of Investigation, first began warning the public against the Baker cancer-cure business, Baker made the fantastic claim that the American Medical Association had offered him a million dollars for his "cancer cure," in order that it might be withdrawn from the market, so that sufferers of cancer would be compelled to resort to surgery, x-rays and radium! Baker denied on the witness stand that he had ever made such a statement, but the American Medical Association submitted a letter signed "N. Baker," which Baker admitted he had dictated, in which it was stated that it was a "fact that the Medical Trust offered one million dollars on January 3rd 1930 to suppress this treatment."

During the trial Norman Baker declared that his monthly receipts from his cancer-cure activities started at about $1,000 for the month of October, 1929, climbed to over $75,000 for the month of June, 1930, and, following the articles published by the American Medical Association, dwindled until in January, 1932, he took in only about $7,000.

### *Biographical Notes on Baker*

It was brought out during the trial that Baker's education went no further than a year and a half of high school work, after which for two years he worked in machine shops. He then went into the vaudeville business, putting on "hypnotism" acts. He continued in that field for about eight or ten years, but in 1914 came back to Muscatine, where he started to manufacture calliopes. This work was interrupted for a short time when he again went on the road "putting on an act." In 1920, his factory burned and he then started a mail-order business. Although Baker admitted that he could not paint, nevertheless he advertised to teach "oil painting in ten lessons by mail." His broadcasting station went on the air in November, 1925.

From the evidence in the case, it appears that Baker's original intention was to make some financial arrangement with Ozias of Kansas City, whereby the Ozias "injection cure" for "internal" cancer could be used at Muscatine. Such plans, however, never materialized, and Ozias testified that he had never sold, loaned or permitted Baker to use the formula. Baker, when asked on the witness stand who it was that told him what was in the Ozias mixture, refused to tell. It was brought out, however, that two persons previously employed by Ozias were later hired by Baker. One of these was a woman, Mary Turner, and the other a chiropractor, Charles Gearing. The Turner woman admitted that she had given thousands of injections of the Ozias "cancer treatment" while in the employ of Ozias; she was employed by Baker to do the same kind of work when she came to Muscatine. Mrs. Turner had no medical training and was not even a registered nurse! The material injected at the Baker Institute was found on analysis to be composed of one-third carbolic acid in a mixture of glycerin and alcohol.

### *The Five Test Cases*

Baker broadcast over his radio station that he was going to investigate a cure for cancer (the Ozias "treatment") and that he "wanted five men or women from any part of the United States or Canada who were suffering from cancer to consent to become a test patient for this treatment, that I would pay all of their expenses for them, all doctor bills, nurses' care, medical fee, room and board, and they to pay their own transportation to the hospital [in Kansas City, Mo.] where the treatment would be made." It developed that, as a matter of fact, practically all the "test patients" paid their own expenses both in transportation and in fees to Ozias. These "test cases" were dealt with extensively in Baker's *T N T Magazine* and the matter was sent out as a reprint, because, according to Baker, the copies of his magazine containing the material had been sold out. The article (reproduced in miniature with this article) was headed in bold-faced type, spread across two pages of the magazine: "Cancer Is Conquered." The article began thus:

> "Cancer is conquered. The greatest discovery in medical science in years—a positive cure for cancer, that dread disease which has taken toll of millions of lives, caused thousands to commit suicide and driven other thousands to insanity—has been revealed by an investigation conducted by Norman Baker, publisher of T N T Magazine and owner of the Norman Baker Enterprises and radio station KTNT, who was assisted by a physician and member of his staff.
>
> "Seeing is believing. Mr. Baker and his fellow investigators have seen with their own eyes enormous and malignant cancers in advanced stages of growth rapidly yield to a new and painless treatment, soften and disappear. They selected the cancer cases themselves for observation after they had determined beyond any doubt that they were authentic cases of cancer. They have watched these true cases of cancer under treatment and have seen the cancers grow smaller and pass away."

The article then went on to state that "painstaking observation" of the cases that had been selected for the test had "thoroughly convinced Mr. Baker that cancer has been conquered," and went into detail regarding the five test cases, reproducing photographs of the individuals concerned. Here it may be interpolated that all five of the patients were dead for some time before Baker ceased sending out this article to prove that "Cancer Is Conquered."

*Test Case No. 1.*—This was the case of a woman who had an "abdominal cancer," and

the case had been diagnosed as incurable by reputable physicians. She took the Ozias treatment and, according to Baker, "began a rapid recovery" and the "cancerous mass in the abdomen had softened and most of it had passed away." The facts were that the poor woman was practically bedfast when she left Kansas City and she died a few weeks later—in November, 1929, although Baker continued to reprint his article, implying that she had been cured, as late as June, 1930!

*Test Case No. 2.*—This was the case of a man with cancer of the throat that reputable surgeons had declared was past the curable stage. In describing the case, the Baker magazine implied that the man was being cured and had gone back to work at his trade. The magazine article was still being sent out six months after the poor fellow was dead and buried!

*Test Case No. 3.*—This was described in Baker's magazine as that of a patient who had had an exploratory operation by reputable surgeons which disclosed the fact that the case was inoperable. He took the "treatments" at Kansas City as one of the "test" cases, and then continued taking them at Baker's "institute." As late as June, 1930, Baker was still sending out reports implying that the man was practically cured, although, as a matter of fact, he had died six months previously—in December, 1929!

*Test Case No. 4.*—This patient was a man with cancer of the jaw. He had previously been operated on by reputable surgeons, who held out no hope of permanent cure. The man took the Ozias "treatment" in Kansas City and Baker's magazine had this to say about him:

> "At this writing the patient has recovered sufficiently to begin to worry over the fact that due to the operation he is destined to go through life disfigured. He keenly feels that had he known about the treatment sooner he could have saved both his life and his face from disfigurement. On this account, he harbors considerable resentment towards the doctors who performed the operation."

This statement was being sent out as late as June, 1930; the patient died May 5, 1930!

*Test Case No. 5.*—This was of a woman with cancer of the breast. She was accepted by Baker as one of the "test" cases and went to Kansas City for about two months, during which time the cancer trebled in size. The Baker magazine article, implying that the woman was being cured, was still being sent out in June, 1930, although the patient died of cancer in February, 1930!

### *Some More Cases*

Another case which was heralded by Baker as a "cure" was that of a Canadian from Saskatchewan, who had cancer of the esophagus. Although he had consulted several reputable physicians in Canada and the United States, he was persuaded to go to Muscatine after hearing Baker broadcast. He stayed at the Baker Institute nine weeks and finally returned to Canada, so weak that he could hardly be moved. After his return and but a short time before he died, the man and his wife heard Baker, over the radio, tell how he (the patient) had been sent home cured and how his wife had written to Baker, stating that her husband was coming along fine. The widow testified at the trial that she had never written to Baker after returning to Saskatchewan and that her husband grew steadily worse. He died in April, 1930.

Then there was the case of a woman with cancer of the esophagus that had been diagnosed by reputable surgeons as inoperable. She went to the Baker Institute, received the "treatment," and was finally told that "her cancer was all gone and she could go home and build up quicker than she could there." She died the next day.

Still another woman with cancer of the breast went to Baker because she dreaded a surgical operation. While she was at the Baker Institute, incisions were made in the breast without any anesthetic being given. She died in the "institute" a few days later.

Another woman with cancer of the breast went to Baker about Jan. 1, 1930, and stayed there until the middle of February, at which time she was discharged as "cured." She died of cancer a few weeks later!

A man with cancer of the pancreas, who had had a palliative operation which allowed him to go back to work, later went to the Baker Institute, having heard Baker over the radio. When he got there, he asked if they could *help* him and, according to the testimony in the case, was told that they could *cure* him. He died about four months later.

Many other cases similar to those just given were introduced by the American Medical Association, but space does not permit even the abstracting of them. Before closing its case, the American Medical Association put in evidence between twenty-five and thirty death certificates of patients who died at the Baker Institute. The Association also submitted in addition seventeen death certificates of Hoxsey victims.

### *The Open-Air Show*

As an advertising stunt Baker broadcast that the Baker Institute would hold an open-air meeting at Muscatine, where it would be demonstrated that both external and internal cancer was curable by the Baker methods. The June, 1930, issue of *T N T Magazine* declared that 32,000 people attended this meeting. In the same issue, one of the "wonders" that were shown at that time was thus described:

> "Most amazing and remarkable of all, the entire top portion of the skull of a patient almost in the last stages of cancer was removed and held up for exhibition by the

> physician before the gasping throng exposing the brains of the entire top of the patient's head."

Large-sized reproductions of photographs were published in *T N T Magazine*, one purporting to show the patient "with bare skull bone exposed," another showing one of Baker's hired men "just after he had administered treatment and removed skull exposing brain," and a third showing what purported to be a "close-up view" of the patient's brain and the alleged "cancerous growth which was eating his life away." Investigation brought out the fact, obvious to any physician, that the man never had cancer but did have a disease of the bony structure of the skull. The condition was treated by Hoxsey at the Baker Institute and the outer layer of the skull was, as the patient put it, "just pried off." What the gaping crowd saw at the "demonstration" was not the man's brain, as reported by Baker, but was in reality the medullary portion of the skull.

Page 34 TNT December 1929

# Cancer Is Conquered

TNT December 1929 Page 35

**Article I**

CANCER is conquered. The greatest discovery in medical science in years—a positive cure for cancer, that dread disease which has taken toll of millions of lives, caused thousands to commit suicide and driven other thousands to insanity—has been revealed by an investigation conducted by Norman Baker, publisher of TNT magazine and owner of the Norman Baker Enterprises and radio station KTNT, who was assisted by a physician and member of his staff.



Photo No. 1

Seeing is believing. Mr. Baker and his fellow investigators have seen with their own eyes enormous and malignant cancers in advanced stages of growth rapidly yield to a new and painless treatment, soften and disappear. They selected the cancer cases themselves for observation after they had determined beyond any doubt that they were authentic cases of cancer. They have watched these true cases of cancer under treatment and have seen the cancers grow smaller and pass away.

**Will Spread the Truth**

As a result of these investigations, Mr. Baker is ready to announce to the world that a treatment has been found that permanently cures cancer.

The investigation has covered several months of painstaking observation of selected cases. It will be continued for sometime and results will be reported in TNT magazine. The results observed to date have thoroughly convinced Mr. Baker that cancer has been conquered. He has decided, in consequence, to place TNT magazine and radio station KTNT wholeheartedly and unreservedly behind a campaign to spread this truth throughout the world.

**Importance of the Discovery**

It is hardly necessary to explain the importance of this discovery. Cancer is one of the most painful, hideous and terrible diseases known to Man. It is advancing at an alarming rate in its inroads on mankind. One person in every ten now has incipient or malignant cancer. Unless it is checked by medical science its rapid spread will make it the major disease menace to the human race. Statistics show that more than 100,000 persons die yearly of cancer. Science is engaged in a literal war of defense against it and is steadily losing ground. As a result, cancer has become one of the chief concerns of medical science. No disease claims more attention and causes more scientific investigations. A positive and permanent cure has been found for this disease. A priceless blessing has been conferred on the human race. One of the greatest causes of human suffering will soon be removed and the hearts of millions will be gladdened.

The frightful nature of this disease is indicated by the pictures on this page. Photo No. 1 shows cancer of the face. The photograph was mutilated so that the patient's features would not be recognized. A cancerous growth like this eats its way from the outside into the mouth so that the patient is not able to eat solid food and subsists on liquid food until the end comes.

Photo No. 2 shows a cancerous breast, with one breast removed. This is the most prevalent from of cancer. Men will never realize the untold agony women suffer from it. Photo No. 3 shows another cancerous breast. Here the cancer is spreading to the upper part of the shoulder and under the arm.

**What Caused the Investigation**

The investigation that revealed this great discovery was started by Mr. Baker after a number of seemingly miraculous cures of very severe cases of cancer had been brought to his attention. The physician who was effecting these remarkable cures had encountered determined opposition from his profession and was having a hard fight to retain his license. This situation appealed to Mr. Baker as demanding attention. Was a valuable truth about to be suppressed because it might disturb or upset established methods and an organized and intrenched interest? An immartial investigation ought to reveal the truth. A successful investigation would either establish the value of the alleged discovery and thereby confer a priceless blessing on humanity, or else it would expose the treatment as a fake and the perpetrator as a charlatan, thus saving numberless prospective victims from losing their money uselessly or to their physical injury. Added to these motives was Mr. Baker's motive as a publisher keenly on the lookout for a feature article.



Photo No. 2

**Real Test Planned**

The investigation was started without bias or prejudice either for or against the alleged cure, but solely for the purpose of revealing the truth. The first step was a visit with the physician who had the cancer formula. The interview impressed the investigators very much. Patients were seen in various stages of the treatment and the evidence they supplied as to the efficacy of the treatment was overwhelming. The formula was not only being applied to the cure of cancer, but to the cure of other diseases arising from bad nutritional conditions, such as diabetes, Bright's disease, tuberculosis, goiter, stomach ulcers, gall stones and rheumatism.



Photo No. 3

The physician gave the investigators many names and addresses of patients whom he stated had been cured for years and were now living without a trace of cancer. He asked the investigators to interview them. Acceptance of this offer was deferred for the time being in favor of a test that would be of a much more fundamental and convincing nature. The testimony alone of alleged former patients would not be conclusive, as testimonials are often obtained by payments or personal influence.

As the basis of the investigation, Mr. Baker proposed that he select five test patients for the treatment after it had been positively determined that they had cancer. The actual results obtained from the treatment of these selected patients would fairly gauge the value of the remedy. He proposed to obtain these patients by giving talks over his radio station, KTNT, in which he would call for volunteers for a test treatment for cancer. The selection was to be made, if possible, from patients coming from different parts of the country, showing cancer in different stages of growth, and in different parts of the body. In addition Mr. Baker and his assistants would avail themselves of the offer to interview or write to patients said to have been cured years ago and who had not suffered the return of the cancers.

**Five Patients Selected**

This challenge was immediately accepted. A stipulated price was agreed upon for the test patients, and Mr. Baker agreed to pay the expenses of some of the patients. In the accompanying pages are presented pictures of the test patients selected showing the cancerous growths. In the January issue of TNT pictures of cured patients together with complete data will be presented. We will not publish the names and addresses of the patients as they do not wish undue publicity, but assure our readers that the original photographs, letters and affidavits connected with the investigation, and the identity of the patients, are a matter of record, and will be furnished any government or private institution, physician, medical group or association desiring to investigate for the purpose of giving the truth to the public.

As a publisher, Mr. Baker does not desire credit for being the first to reveal this discovery to the world. He has, therefore, sent copies of this article to the press and has invited the newspapers to verify the facts claimed as a result of his investigation, or use all or any part of this article.

**First Patient Treated**

The first patient to respond to the radio call for the test treatment was a woman who lives 22 miles from Muscatine and was suffering from a very bad abdominal cancer. She had been treated by local physicians and the Medical College of the State University of Iowa for cancer. As a last resort radium was used. The result of these radium burns are shown in the photograph of this woman, marked Photo No. 4. This radium burn was about four inches long and when spread out was



Photo No. 4

*Miniature reproduction of a double-page spread of the Baker article in his magazine T N T, telling the public that "Cancer Is Conquered."*

In the final arguments, the attorneys for the American Medical Association made no attempt to soften the charges that had been made in HYGEIA and *The Journal of the American Medical Association* regarding Baker. "We called Baker a quack and we are not here to apologize for it," they declared. They brought out, further, that the State of Iowa had enjoined Baker from practicing medicine without a license and that the Federal Radio Commission had revoked Baker's broadcasting license, because it found his operation of the station inimical to the public interest.

The Association's counsel also dwelt on the case of the young Iowa farmer, who, suffering from what he thought might be cancer, went to the Baker Institute, where Hoxsey started to "treat" him for cancer. Not being satisfied that the Baker Institute knew much about his case, the young man went to the State University of Iowa's Dermatologic Clinic, where they found he was actually suffering from "barber's itch!"

Baker took the attitude that the American Medical Association had no right to attempt to interfere with his business or injure his reputation as one who had conquered cancer. The American Medical Association, on the other hand, acted on the belief that there is a moral obligation on the medical profession of the country to let the public know whether claims for alleged cures for cancer have or have not any scientific basis in fact.

The case finally went to the jury and after due deliberation a ballot was taken. The vote was unanimous for the American Medical Association. The jury's brief formal report to Judge Nordbye was: "We, the jury, find for the defendant."

# What to Do When a Child Chokes

By E. W. Hagens

CHILDREN especially are liable to get things into the throat and choke on them. They frequently eat while at play and thoughtlessly inhale at the wrong time; hence the peanut, popcorn kernel or watermelon seed drops into the windpipe. The same thing occurs when children have other objects in the mouth, such as pins, tacks and small playthings. At the time the object is inspired, the child usually chokes, is unable to breathe and frequently turns blue. In such an emergency, one of several things may be done by the parent. The finger may be put down the child's throat and the object either pulled out or pushed down as far as possible. This procedure is usually dangerous, as the object, or foreign body as it is called, may only be wedged tighter and damage the soft tissues of the throat. Of course, mothers have removed objects by this method and saved their children's lives; nevertheless, because of the danger of making matters worse it cannot be recommended.

When a foreign body completely blocks the windpipe there is no time to call a doctor, as something must be done immediately in order to save the child's life. A fairly safe method is to turn the child upside down and vigorously slap his back. Simply slapping the back is often sufficient. The child gives a forceful cough, and the object is expelled. Although this happy outcome does not always result, I believe it is the best treatment that can be given under the circumstances.

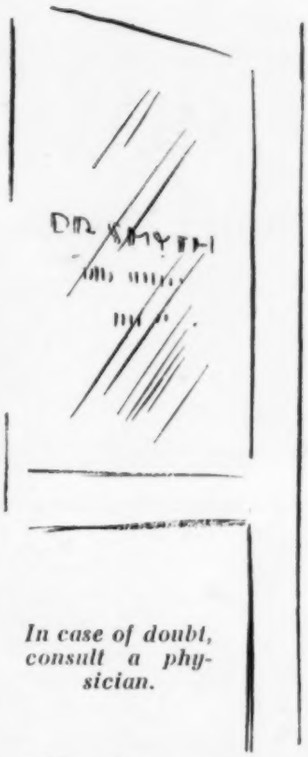
In milder cases of choking, when the windpipe is only partly blocked, the child usually recovers his breathing sufficiently well so that there is no immediate danger to life. In cases in which life is not temporarily in danger, it is important that crude methods to remove the object are not used. It is much better to let matters rest until the physician can see the child and decide what is best to do.

*First aid for the blocked windpipe.*

When an object such as a tack, pin or peanut gets into the windpipe it may lodge in the voice-box, or larynx, or in the trachea, or windpipe, or it may go on down into either the right or the left side of the lung. Objects in the voice-box usually produce hoarseness and cough, while those in the lung result in cough and often in symptoms resembling bronchitis or pneumonia. An important point to remember is that in some cases there are no symptoms for some hours or days after the initial choking. Parents should not be misled by this, however, but should have the child examined. If examination is delayed until definite symptoms develop it may be too late to save the child's life, or at best the case becomes complicated and the child is bedridden for weeks. If these children are taken care of early and the object is removed, they are usually well within a day or two.

When an object is choked on, it need not always go into the windpipe. It may start down the food passage, or esophagus as it is called, and become caught part way on its path to the stomach. Objects that frequently lodge are safety pins, coins, slugs, buttons and playthings. In these cases the breathing is usually quite normal, but the child finds that it hurts to eat. He may refuse all food or may take only fluids. Occasionally there seems to be little pain or none at all for a period of days. This would also be

misleading, and shows that examination is necessary in every case in order to ascertain the exact condition. The food passage, or esophagus, is a delicate tube and is easily infected or ruptured. A rupture results fatally in the majority of cases; therefore, it is highly important not to try to push the object down into the stomach, for fear that it will be pushed through the wall of the esophagus. This is especially liable to happen to objects with points or sharp edges or to objects that have caused an ulceration.



*In case of doubt, consult a physician.*

What can parents do when they suspect or actually know that their child has an object either in the air passage or in the food passage? A physician should be consulted. He can then help decide by obtaining the history of the case and by making an examination. In some instances the object may still be high up and may be seen by looking into the back of the throat. When it is apparent that the object has gone lower it may sometimes be seen by the use of a mirror by a throat specialist. If it is still not found, the child should be taken to an x-ray laboratory. At the laboratory the child is placed under the fluoroscope. This machine allows the physician to look through the body and see certain objects such as coins, buttons or pins. Thus, without even taking a picture it is frequently possible to decide whether the object is present or not, and if present, where it is located. Objects not shown by the x-rays often produce changes in the tissues which themselves point to the presence of the object. By giving the child a barium malted milk to drink, it is frequently possible to find out more about an object in the food passage.

If a foreign body is located under the fluoroscope, x-ray pictures are next taken. These aid the doctor who is to remove the object, and they also act as a permanent and indisputable record of the case at that time. At the time of removal of the object another fluoroscopic examination and sometimes another set of pictures are advisable. This is necessary because objects frequently move from one location to another or they change their position. In those cases in which it is shown that an object has gone on down the food passage into the stomach, the child should be watched and examined every few days to see if the object is passing along the bowel. The stools should be carefully watched also. In a few instances the object does not move for some days and then an abdominal operation may be necessary.

When an object is lodged in the air or food passage there is only about 2 per cent chance that it will get out of its own accord. Those that remain eventually produce either death or chronic infection. Removal within one or two days is usually successful; this is done by slender tubular instruments, resembling gun barrels. They are lighted and are called bronchoscopes and esophagoscopes. The physician finds the object, grasps it with a forceps through the tube and removes it. In larger cities there are a small number of doctors who are especially trained to do this work, in small cities one or two may be found, and in many towns none at all. Thus these cases are referred by the family physician to these special doctors. The work is best done in a hospital in which trained assistants may help the physician. When unable to procure a physician within a reasonable time, parents may take their child to a good hospital in which the proper physician may be obtained or called for.

In conclusion I would urge parents to be careful as to what they feed their children or with what they let them play. Hard or chunky pieces of food, fruits not having the pits removed, hard candy, peanuts, popcorn or crackerjack should not be given to children under 3 to 4 years of age. There are plenty of other nourishing things to give such young children, and they can eat plenty of these more dangerous foods later in life. Who knows how many individuals with chronic lung infections owe their trouble to choking on something in their earlier years! Many toys are fascinating to children and seem satisfactory to their parents, but if they have parts that may get loose and can be choked on they are better thrown away, or best of all, not bought in the first place. Certainly nails, tacks, pins, buttons, beads and coins should be kept out of reach if possible.

# HEALTH PROMOTION
## in the Bell Telephone System

By

*Leverett D. Bristol*

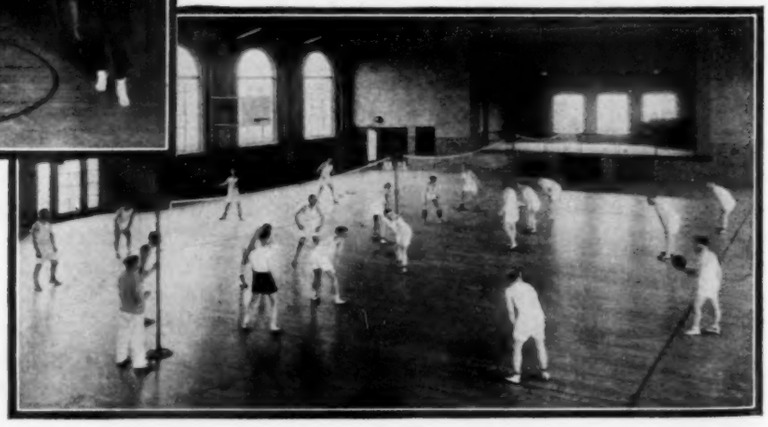
THE PERSONNEL policy of the Bell System seeks to bring out and develop the best qualities in each employee and to weld that best into effective cooperation in the business. In line with such a policy, various personnel practices and activities have been established, not the least of which have to do with health promotion and maintenance.

The Bell System consists of the American Telephone and Telegraph Company, the parent company which furnishes headquarters staff services and, through the long lines department, long distance telephone service; twenty-four operating telephone companies furnishing local and toll service within their territories; the Western Electric Company, which is the system's manufacturing and supply agency, and the Bell Telephone Laboratories, maintaining and operating the development and research laboratories. Although all these companies make up a coordinated national system, each of them has a complete organization and, within broad lines of system policy, carries full responsibility in its own territory and for its distinctive functions. Excluding the Western Electric Company, Bell Telephone Laboratories and the Bell Telephone Company of Canada, the total number of employees in the system, as of Dec. 31, 1930, was 328,956, of whom 203,805 were women and 125,151 were men.

The chief departments characteristic of the operating telephone business, from the point of view of occupation, are the traffic and plant departments. The traffic department, with its larger percentage of women, naturally has more problems related to sickness and health than has the plant department, in which men largely predominate. This fact explains the greater emphasis on the working conditions for women in the traffic department.

The telephone business serves as a means of communication between one person and another. As such it must be accurate, dependable, speedy, economical, and as free as possible from mechanical or electrical defects. To carry on this work requires a high type of employee.

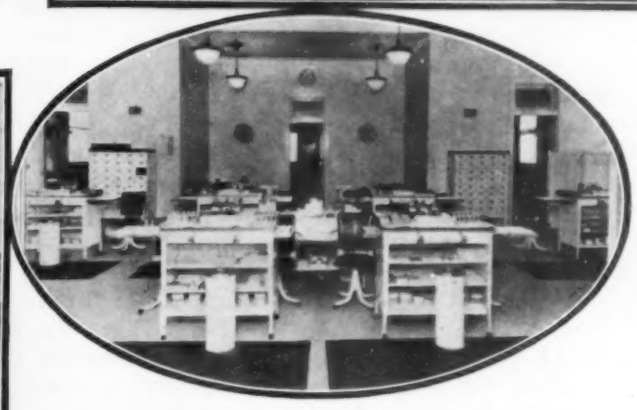
With adequate provision from the standpoints of length of work periods, rest and relief intervals, the telephone operator is no more susceptible to disease than is the average woman in industry. The girl who, as a telephone operator, develops tuberculosis or ill-defined nervous disorders is usually the girl who at her age would develop these conditions under any routine industrial environment. There is



*Supervised exercise, sports and recreation programs are made available by Bell System companies.*

*A typical quiet room for emergency use.*

*Pleasant surroundings in cafeterias are conducive to good appetites and health.*



*A voluntary class in nutrition is shown above. The session is held in a company kitchen.*

*The picture below shows the emergency room in a telephone manufacturing plant.*

apparently no health hazard from the standpoint either of disease or of accident that is characteristic of the telephone industry.

To afford adequate telephone service, facilities must be available twenty-four hours a day. To cover these hours the day is divided into three tours (day, evening and night) of approximately eight hours each; the employee is assigned to one of these tours. These tours or tricks may be continuous or split. As a rule, at least one hour is given midway in the continuous tour for luncheon and rest. Additional rest periods of fifteen minutes usually are given in the mid-forenoon and mid-afternoon. Standing relief for operators and sitting relief for supervisors, with a complete periodic change in the air of the operating room, usually are parts of the regular routine.

Practically all companies have considered the importance of adequate seating and proper posture in connection with positions requiring more or less constant sitting, as in offices and operating rooms. As a result of suggestions and recommendations of the benefit and medical department and the operation and engineering department of the American Telephone and Telegraph Company, suitable chairs, adapted to the kind of work involved, have been placed in use by most of the companies, and continuous studies are being made in the interests of further improvement.

Constant attention is given also to the problems of ventilation, temperature regulation and lighting, and every effort is made to obtain the optimal results in health and comfort.

Associated companies in the Bell System apparently have spared nothing to make available for women employees adequate rest rooms, quiet rooms, locker rooms and toilet facilities. On the whole, these rooms are attractive and comfortable, and are maintained in a sanitary and hygienic condition. The care taken by the telephone company in the upkeep of these rooms and facilities is of the utmost value not only in ministering to the employees during hours of work but in teaching lessons that will be reflected in the homes of the employees. Certain companies maintain in central offices a branch library, including popular health books and journals; attractive posters on health subjects are frequently displayed in these rooms.

Locker rooms usually are of sufficient size to accommodate without undue crowding, the coats, hats, rubbers and umbrellas of employees; and in many of the central office locker rooms, rubbers and umbrellas may be borrowed in emergencies. These provisions are of definite value as preventive measures. Respiratory illness, including particularly the common cold and influenza, is, in the experience of most of the associated companies, the chief cause of absence. From various studies it appears that there is a definite correlation between precipitation in the form of rain or snow and absence from work on account of diseases of the respiratory system. Precipitation is apparently much more important in this connection than low temperature.

*Men of the plant department are trained to render emergency first aid. Seventy-five thousand male employees have had first aid instruction.*

Practically all associated companies have found it necessary and desirable to provide cafeterias or lunch rooms for employees, particularly in central offices for women operators of the traffic department. These cafeterias and lunch rooms as well as kitchens and storerooms are inspected regularly, and food handlers are examined periodically. A well balanced menu is provided approximately at cost, and, in the larger central offices, food is available during the entire day.

Attractive posters are displayed by some companies in these cafeterias to call attention to the important lessons of diet, nutrition and health. There is much evidence to indicate that on the whole, one of the important results of the health course and the nutrition course has been an improvement in the selection of food from the standpoint of a well balanced diet. The increased demand for milk and green vegetables and the decreased consumption of sweets are particularly to be noted.

Most of the companies are taking steps to encourage their employees to take part in various forms of recreation and exercise such as hiking, swimming and bowling. In some instances a satisfactory arrangement has been made with the community authorities whereby at specified times the telephone company employees as a group are allowed the privileges of various public parks and swimming pools.

Breaks in telephone service due to loss of man power or woman power may be just as serious as those due to loss of electric power or machine power. From this point of view, as well as from the more humanitarian motive of a personal interest in the well being of each employee, a reduction in absence from work on account of sickness is most important. The problem naturally divides itself into two parts: (1) incidental or short-term absence, and (2) absence of more than seven days.

Absences of more than seven days due to disability or sickness have come under careful observation and have been reported, recorded and analyzed in a standardized manner in connection with the employees' benefit plan, which has been in operation since 1913. Detailed knowledge is now available as to the general incidence and causes of sickness lasting over seven days among men and women employees, on the basis of periodic reports prepared by the benefit and medical department of the American Telephone and Telegraph Company from standardized reports received from all associated companies in the Bell System.

The practice of requiring physical examinations of applicants for employment varies considerably in the different associated companies, depending on local conditions and policies. The great advantages of periodic health examinations are emphasized and encouraged particularly for executives and employees of the older age groups.

On the assumption that the chief privilege and obligation of industry with reference to sick employees is to render a contributory service rather than to administer actual medical care and treatment, the majority of telephone companies in the Bell System have organized medical departments that render emergency services and have made available the necessary facilities for visiting sick employees in their homes or in hospitals. In some instances these visitors are lay workers while in others graduate nurses are employed. The patients are usually visited on the second or third day of their illness and periodically during their entire disability. The visitor not only renders a definite social service to the sick employee but assists the company in following the case. When nurses are used as visitors they may also be of assistance to the attending physician. If their operating work will permit, chief operators and foremen

cooperate in visiting those under their direction who may be ill.

By requiring after illness a physical examination and a short period of observation by a company physician, many companies guard against possible spread of communicable diseases to other employees, and the convalescent individual is not allowed to return to full-time work until he or she is completely recovered.

Four of the associated companies maintain so-called convalescent or rest homes, one of which has the added feature of a vacation camp during the summer months.

These homes are situated amid country surroundings and are available to women employees during the period of convalescence from illness, operation or accident; they are used also for those underweight individuals requiring properly supervised rest, diet and recreation. There is evidence to indicate that, in certain instances, residence in these homes has led to closer friendships and increased morale as well as to lasting physical benefit. The need for such country homes naturally is greater in cases in which large groups of city employees are concerned.

In most instances the general health education activities now carried on by various companies are under the direction and supervision of the operating departments, with the cooperation and assistance of the medical departments. The personnel representative of the company has advisory and supervisory functions in this connection.

The activities of outstanding value and importance are the general health course and the nutrition course for women, with certain follow-up activities, and the course in safety and first aid for men.

It is evident that the general health course for women has met with unqualified success and its general value and results have been recognized by most of the twenty-four operating companies in the system. With the completion of class instruction for the season 1930-1931, this voluntary health course has been in operation in most of the companies for a period of six years, with approximately 140,000 graduates.

Emphasis is laid throughout this course on the development of proper health habits conducive to the maintenance of good health and to practical every-day methods of living. Only the most essential phases of anatomy and physiology are touched on. The course, which includes a special textbook, consists of ten lessons, each of an hour's duration. Instruction is given by carefully trained instructors chosen from among the women employees on the basis of their teaching and leadership ability.

When it is realized that the health course has been given on a voluntary basis and, as a rule, on the employee's own time, the large number who have taken the course is evidence in itself of the fact that it has met a real need of the women employees. As yet it is too early to give a critical appraisal of the results of the health course in terms of decreased absence from work on account of sickness disability. The preliminary studies that have been made to date along this line indicate a lowered sickness absence rate among health course graduates as compared with control groups.

A follow-up activity on the subject of nutrition, which promises much of value and interest, is based on the health course and has been in operation since 1929 in several of the companies. Employees who volunteer for the nutrition course, which consists of twelve lessons of an hour and a quarter each, are selected in limited numbers from those who have had the general health course. Lessons are given by an instructor especially trained for the task. Classes are held on the employee's own time in company cafeterias and kitchens. To date, approximately 3,600 employees of the Bell System have had the nutrition course.

Somewhat analogous to the general health course for women, under the supervision of the traffic departments, there has been in operation since 1922 in practically all Bell Telephone companies in the United States a course in safety instruction, first aid practice and accident prevention for men, under the supervision of the plant departments. This course in some companies has covered also a few fundamental health subjects and has made use of an excellent handbook on first aid and health, prepared jointly by the American Telephone and Telegraph Company and the American Red Cross. More than 75,000 employees have received this training. The Bell Telephone Company of Canada offers a similar course to employees.

A few of the companies call attention to personal hygiene and health habits by the use of posters, special bulletins, leaflets and moving pictures. In one or two instances, poster contests have been held and have been of value in developing individual initiative, bringing out artistic ability and focusing attention on important health subjects.

Being outside the regular operating organization, the medical department functions as a special advisory and assisting emergency service without actual authority or responsibility for positive health promotion and supervision. Moreover, its jurisdiction, as a rule, is limited to those employees who come to it voluntarily or who are referred to it by various operating departments for physical examinations, professional advice and reference to private physicians. For this reason, the chief responsibility for actual health promotion and health supervision among the rank and file of employees is assumed by the operating departments, the ultimate objective being to encourage and help each employee to fulfil his own health obligation.

# Ask the Chicken

By
E. R. BRYANT

"HOWDY-DO, Mrs. Davis. I'm so glad to find you in—I was afraid that you might have gone to town, and I did so want to talk to you. Seems to me I need a few extra hours in each day for all the things I want to do."

"Good afternoon, Mrs. Mullen. Come right in."

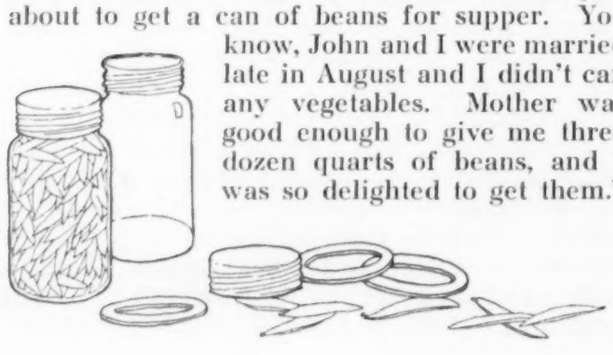
"On one condition—that you go ahead with your work while we talk. Four o'clock is no time to visit a farm woman."

"Don't you worry about that; I enjoy having some one to talk to while I work. If it weren't for you and a few other women, Mrs. Mullen, I'd be downright lonesome."

"Oh, that will all be different before long. Just because you graduated in home economics and worked in a food laboratory at the experiment station they imagine you are stuck up. When they know you as I do—and it's only been five weeks, too!"

As they walked through the hall to the kitchen of the fine old farmhouse, Mrs. Mullen explained that the men of her household had taken the afternoon off and gone fishing. She was free and was driving over to town. She had heard of something that would make peaches jell and she wanted more particulars about it. Was it dangerous, as some one had insisted? Mrs. Davis assured her that the product to which she referred would make peaches jell and was absolutely harmless.

"Speaking of canning, Mrs. Mullen, come down to the basement with me. I was just about to get a can of beans for supper. You know, John and I were married late in August and I didn't can any vegetables. Mother was good enough to give me three dozen quarts of beans, and I was so delighted to get them."



*"Mother was good enough to give me three dozen quarts of beans."*

The two women inspected the rows of cans.

"Well, Mrs. Davis, I'll say your mother certainly knows how to can beans. She uses the cold pack method, doesn't she?"

"Yes, and she's a real artist at it. Some one has said that there's nothing appreciated so much as appreciation, and my mother was so pleased because I showed more appreciation for these than for any of her other wedding presents."

Mrs. Davis took the can at the end of the front row, and they went up to the kitchen. The lid of the can was refractory, and it took the combined efforts of the two to open it. There was a slight bulging of the tin.

"Now isn't that queer? It's the first can of mother's I ever saw like that—smells fair, don't you think?"

After applying her nose several times, Mrs. Mullen replied: "Yes, I'd say almost perfect."

She took a fork and fished out a pod, but Mrs. Davis held out a restraining hand.

"You know more about cooking in an hour than I do in a day but, as a matter of safety, never taste canned vegetables until you have boiled them for a few minutes."

Mrs. Davis took out a few pods, placed them on a piece of paper and emptied the remaining beans into a pan to be ready to heat for dinner.

After Mrs. Mullen had left, Mrs. Davis took the bean pods out and fed them to a chicken penned up awaiting execution on the morrow. The experiment meant the possible sacrifice of a chicken dinner.

"Now, chickie, the chances are about fifty to one that these won't hurt you. It's a sort of judgment on the beans. You will render the verdict—innocent or guilty. The decision will come while you sleep."

*"Canned vegetables, especially the home canned variety, should be boiled before they are used."*

About 8:30 the next morning, Mrs. Mullen received a phone call from Mrs. Davis. "Can you and Mr. Mullen come over right away? I have a sick chicken that I am sure you will find unusually interesting."

In fifteen minutes the mystified Mullens arrived. They found the Davises with Dr. Brown, county health commissioner, looking at the chicken. What could be so unusual about a sick chicken?

"Dr. Brown, I want you to know my neighbors Mr. and Mrs. Mullen. And now, Doctor, I wish you would be kind enough to explain the matter to them."

"Since Mrs. Davis insists, I shall, though I'm sure she could do as well or better. I understand that you were here yesterday afternoon, Mrs. Mullen, when Mrs. Davis opened a can of beans. It was not noticeably 'off' in odor but showed some gas. From her experience in the food laboratory, she thought of botulism, but didn't believe it could be that. She boiled the beans several minutes, using a thermometer to make sure that they were at true boiling temperature. She does this with all canned vegetables, and it is especially advisable with those that are home canned. Bacillus botulinus is seldom encountered in this country, but when it is present in canned food the toxin is so deadly that many persons have been killed by eating small portions of the tainted food, even as little as a part of a bean pod."

"Oh, I see now why Mrs. Davis wouldn't let me taste a pod yesterday. Excuse me, Doctor, go on."

"Fortunately," resumed the doctor, "boiling at least ten minutes destroys the toxin and apparently renders the food safe. That is why the Davises are not ill, even though they ate the beans. The chicken, however, ate the unboiled beans and is almost dead and shows all the symptoms of botulism, or limberneck, as it is called in fowls."

After a pause, Mrs. Mullen said in an awed voice: "Mr. Mullen and I have always been fond of green beans and I have a lot canned, but no more for us."

"Oh, I wouldn't say that. Beans are a wonderful food if properly canned. Botulism is rare but may occur in a variety of foods."

"What do you call proper canning? Mrs. Davis' mother is an experienced canner, and she uses the cold pack method."

"The answer is this. Vegetables when canned must be boiled for five and a half hours to be safe, which is impractical. So the only practical way to be safe is to use a pressure cooker in doing your canning. The chances are a thousand to one that the beans which you canned are all right. Boil them before serving and you can feel assured."

Mrs. Davis spoke up: "Mrs. Mullen, you asked me to speak at your club, but I don't like to see newlyweds try to tell experienced women things, so I have prevailed on Dr. Brown to take my place, with your consent, and talk to you about botulism."

"Do you know," said Dr. Brown, "this whole affair reminds me of Roman mythology. They say that before a battle the priest would feed sacred chickens and then study their actions to see whether the signs were favorable or otherwise—that's what Mrs. Davis did—she asked the chicken."

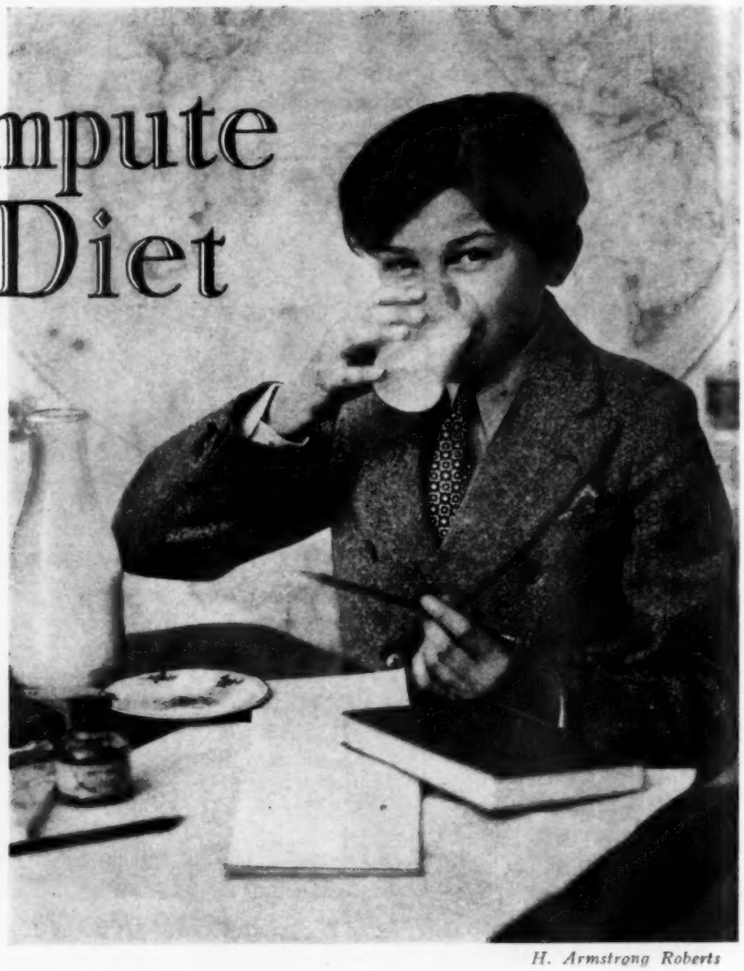
# How to Compute Tommy's Diet

*By*

*Frances Stern*

*and*

*Mary Pfaffmann*



*H. Armstrong Roberts*

*Milk helps Tommy build bone.*

BACKGAMMON has returned to favor. What a picture this recalls to many minds—a winter evening in the old home, the open fireplace, apples and cider, chairs drawn for a game of backgammon, checkers, dominoes, cribbage or chess.

There are enthusiasts who declare that the computation of a diet is like a fascinating game. Let us try the game on a ruled card for our field; as our play pieces, or counters, we shall use foods, our goal being to work out a day's meals that in kinds and amounts of food will be adequate for Tommy's requirements. But the rules! The explanation of these will require a little philosophy, a little physiology, a little of the science of nutrition, and some simple arithmetic.

First of all, what are the body's food requirements? They are logically based on the body's structure and functions. Let us analyze Tommy a bit and see what is beneath the skin and what is the nature of the body materials on which the activities of his life depend. Let us picture first the skeletal foundation that holds the child's body erect, and of which the teeth are a part. It is composed of calcium and phosphorus—99 per cent of it calcium to be obtained from food.

Calcium! To meet the demands of skeletal growth and to furnish calcium for other body purposes for which it is essential, Tommy requires one gram of it, or one-thirtieth ounce, per day, which is the amount of calcium that one quart of milk will furnish. Other foods high in calcium are the leafy vegetables, the orange and other fruits, the whole grain breads and cereals, eggs and cheese.

Another picture, and Tommy is seen as a well ordered mass of tissue or muscle, the result of a constant process of growth and renewal. This creative building and renewing substance is protein obtained from food. The scientist finds that Tommy's average daily requirement of protein for growth, muscle-building and repair of worn tissue is from 2 to 3 grams, or from one-fifteenth to one-tenth ounce, for every kilo (2.2 pounds) that he weighs.

The best sources of protein are the foods of animal origin: milk, cheese, eggs, meat and fish, as well as dried peas and beans, nuts and the whole grain breads and cereals. The proteins that are derived from vegetable sources are less successful than the animal proteins in carrying on the process of growth, and their value in this respect is much improved when they are served with an animal protein; cereal with milk, and peas and beans with meat, fish or milk afford combinations of vegetable and animal proteins.

Still another picture shows the circulatory system, by means of which the blood reaches every part of the body, carrying hither and yon into every part all the supplies for growth of bone and tissue and having many other duties to perform. How important that it is kept in a healthy condition! The hemoglobin of the blood is a most complex substance. An essential element in it is iron, to which, in part, it owes its red color. Blood of such color flowing to every part of Tommy's body might well say, "I am yours, for good health!"

Whence comes this iron? From food! Dr. Henry C. Sherman of Columbia University has coined the phrase "food iron." The best sources of food iron are the leafy vegetables, beans and peas, egg yolk, dried fruits, whole grain breads and cereals, molasses, red meats and the visceral organs. The daily requirement for everybody is .015 Gm., a microscopic amount, but so essential to the health of the blood and for other needs of the body that it must never be neglected. The egg contains .0015 Gm., one tenth of the daily requirement. Other foods that are approximate equivalents of the egg in content of iron, besides the vegetables already referred to, include the following:

| | |
|---|---|
| Bread, rye or whole wheat | 3 slices |
| Oatmeal | 1 sauce dish |
| Prunes | 5 |
| Raisins | 1 tablespoonful |
| Meat | 1 ounce |
| Molasses | 1 tablespoonful |
| Rhubarb | 1½ cups |

And now let us consider Tommy's activity. That, too, requires food for fuel. The protein foods could be used for that purpose. But look over the list of the protein foods. Expensive! Save them for the needs of growth. Cheaper fuel, and as good for the purpose, will be supplied by the carbohydrates (starches and sugars) and fats. Tommy, so active, energetic, alive, will require daily an average of from 8 to 10 Gm. of carbohydrate for every kilo that he weighs, and of fat, from 2 to 3 Gm. per kilo of body weight.

Let us review the foods that Tommy should use for fuel. They include the starches, sugars and fats. The starches are breads and cereals, macaroni and spaghetti and other combinations of flour, potatoes, corn, dried peas and dried beans.

The sugars are the fruits (varying in their content of sugar from the orange and the grapefruit, which are about 10 per cent sugar, to the dried fruits such as prunes, which are 60 per cent sugar), syrup, honey, molasses, and vegetables (which, again, vary in sugar content, the tomato and the leafy vegetables being 5 per cent sugar, the root vegetables 10 per cent, and lima beans and corn 20 per cent).

The fats are obtained from milk, cream, butter, meat, bacon, fish, eggs, nuts and salad oils.

We shall not consider here other mineral elements besides calcium and iron that enter into the body's composition, but we must emphasize the body's need of water. Water is contained in milk, fruit, vegetables and many other foods. Nevertheless, Tommy should be sure to drink, in addition, four glasses of water a day to assure an adequate supply.

Certain other food factors have proved essential to growth and health. These are the vitamins A, B, C, D, E and G. A day's diet will supply the vitamins that Tommy needs if it contains milk, butter, the whole grain in bread or cereal, an egg, a leafy vegetable or one served raw (the tomato served in any way is an excellent source of vitamin C), and the fruits. The fruits should include a citrus fruit (the orange, lemon or grapefruit) and the banana. Cod liver oil, a well known source of the antirachitic vitamin D, is of especial importance to babies and children.

And now for the arithmetic involved in our game. It is necessary to remember these two measurements of the metric system: 28.35 Gm., approximately 30, equal 1 ounce; 1 Kg. (kilo) equals 2.2 pounds.

Our child, Tommy, 9 years old, weighs 66 pounds, which is equal to 30 kilos. Keep in mind: 30 kilos = Tommy's weight. Then, according to previous statements Tommy will need daily: of carbohydrate, from 8 to 10 Gm. for every kilo of his weight, or from 240 to 300 Gm.; of protein, from 60 to 90 Gm.; of fat, from 60 to 90 Gm.; of calcium, 1 Gm.; of iron, .015 Gm., and the vitamins.

To help us further with our arithmetic, a table has been evolved by the food clinic of the Boston Dispensary that gives the amounts of carbohydrate, protein, fat, calcium, phosphorus and iron in the usual household measures (a serving, a cup or glass, a sauce dish, a tablespoon or a teaspoon) of our common foods.

### *The Essentials of Tommy's Diet*

With this preparation and material, let us play the game. How shall we place our counters, the foods, on the field of our game, so that they will meet these daily requirements and we will achieve our goal? First, we must make sure that Tommy's need of protein for growth and repair of tissue (from 60 to 90 Gm.) is well covered.

| Food | Amount | Gm. |
|---|---|---|
| Milk | 3 glasses per day | 24 |
| Egg | 1 | 6 |
| Whole grain bread | 3 slices | 9 |
| Oatmeal | 1 sauce dish | 5 |
| Meat | 2 ounces | 20 |

There are 64 Gm. right off! And Tommy will get more in his macaroni, potato, his piece of sponge cake, his banana and his vegetables, so that his day's needs will be amply supplied.

Three glasses of milk will also go far to meet the calcium needs, furnishing .87 Gm. of the required calcium. The whole grain bread and cereal, vegetables and fruit will supply the rest.

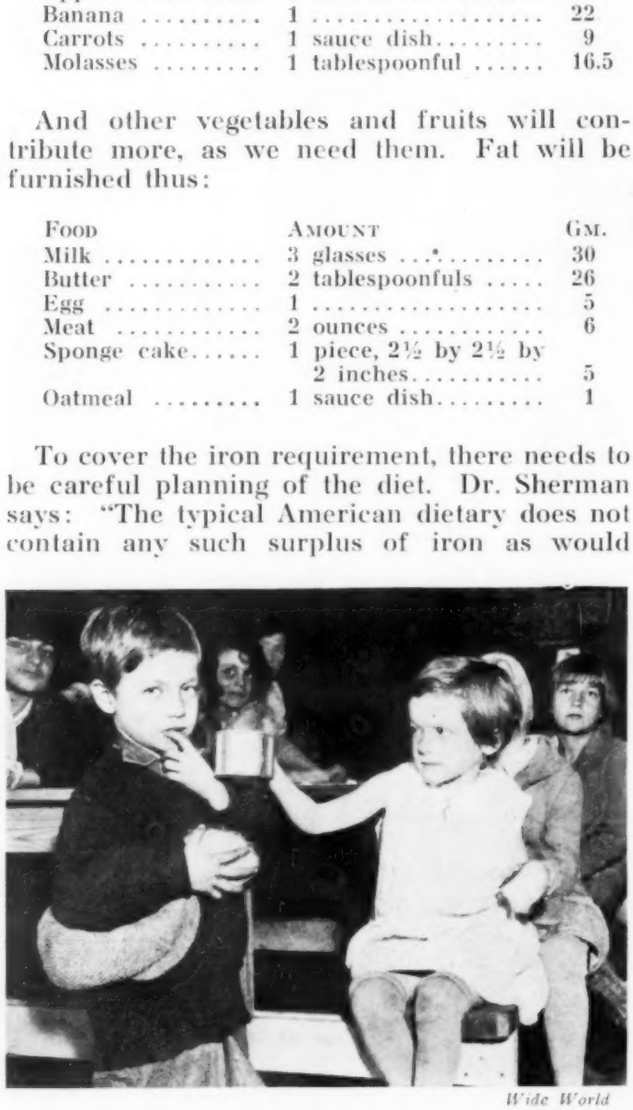
Now we come to carbohydrates for Tommy's activities! Without effort on our part, the starches and sugars will occupy the largest part of a diet. The table of food values and measures mentioned gives us these figures:

| FOOD | AMOUNT | GM. |
|---|---|---|
| Milk | 3 glasses | 36 |
| Bread | 3 slices | 45 |
| Oatmeal | 1 sauce dish | 20 |
| Macaroni | ½ cup | 11 |
| Potato | 1 medium | 18 |
| Sugar | 1 tablespoonful | 15 |
| Sponge cake | 1 piece, 2½ by 2½ by 2 inches | 30 |
| Apple | 1 small | 14 |
| Banana | 1 | 22 |
| Carrots | 1 sauce dish | 9 |
| Molasses | 1 tablespoonful | 16.5 |

And other vegetables and fruits will contribute more, as we need them. Fat will be furnished thus:

| FOOD | AMOUNT | GM. |
|---|---|---|
| Milk | 3 glasses | 30 |
| Butter | 2 tablespoonfuls | 26 |
| Egg | 1 | 5 |
| Meat | 2 ounces | 6 |
| Sponge cake | 1 piece, 2½ by 2½ by 2 inches | 5 |
| Oatmeal | 1 sauce dish | 1 |

To cover the iron requirement, there needs to be careful planning of the diet. Dr. Sherman says: "The typical American dietary does not contain any such surplus of iron as would



*Wide World*

*The school lunch should be planned with care.*

justify the practice of leaving the supply of the element entirely to chance. The available data rather indicate that foods should be selected with some reference to the kinds and amounts of iron compounds which they contain."

Our table of food values and measures gives us the following help:

| FOOD | AMOUNT | GM. |
|---|---|---|
| Egg | 1 | .0015 |
| Bread, whole wheat | 3 slices | .0011 |
| Oatmeal | 1 sauce dish | .0011 |
| Molasses | 1 tablespoonful | .0017 |
| Meat | 2 ounces | .0031 |
| Potato | 1 medium | .0010 |
| Milk | 3 glasses | .0015 |
| Spinach | 1 sauce dish | .0036 |
| Banana | 1 | .0005 |

*— Sherman*

There are other foods, giving lesser amounts, to be used to Tommy's advantage.

So we play the game of computing a diet to meet definite body needs. Here is the complete layout of the field at the end of the game.

### *A Typical Diet for the Child's Daily Needs*

Tommy: Age: 9 years. Weight: 66 pounds, or 30 kilos.
Occupation: Active school child

| Foods | Household Measure | Gm. Carbohydrate | Gm. Protein | Gm. Fat | Calories | Gm. Calcium | Gm. Iron (Fe) |
|---|---|---|---|---|---|---|---|
| Meat | 2 ounces | 0 | 20 | 6 | .... | .011 | .0031 |
| Egg | 1 | 0 | 6 | 5 | .... | .033 | .0015 |
| Milk | 3 glasses | 36 | 24 | 30 | .... | .870 | .0015 |
| Butter | 2 tablespoonfuls | 0 | 0 | 26 | .... | .006 | .0000 |
| Flour, white | ¼ tablespoonful | 1 | 0 | 0 | | | |
| Bread, whole wheat | 3 slices | 45 | 9 | 0 | .... | .045 | .0011 |
| Oatmeal, cooked | ⅔ cup or 1 sauce dish | 20 | 5 | 1 | .... | .020 | .0011 |
| Macaroni | 1 scant half cup or scant sauce dish | 11 | 2 | 0 | .... | .004 | .0002 |
| Potato | 1 medium | 18 | 2 | 0 | .... | .014 | .0010 |
| Sugar | 1 tablespoonful | 15 | 0 | 0 | .... | .000 | .0000 |
| Molasses | 1 heaping tablespoonful | 16.5 | 0 | 0 | .... | .048 | .0017 |
| Cake, sponge | 1 piece, 2½ by 2½ by 2 inches | 30 | 3 | 5 | | | |
| Fruit | | | | | | | |
| 10% sugar | 1 medium orange | 11 | 0 | 0 | .... | .025 | .0004 |
| 15% sugar | 1 small apple | 14 | 0 | 0 | .... | .013 | .0003 |
| 20% sugar | 1 banana | 22 | 2 | 0 | .... | .014 | .0005 |
| Vegetables | | | | | | | |
| 5% sugar | 1 sauce dish tomato | 4 | 1 | 0 | .... | .011 | .0004 |
| 5% sugar | 1 sauce dish spinach | 3 | 2 | 0 | .... | .067 | .0036 |
| 5% sugar | 3 leaves Iceberg lettuce | 1 | 0 | 0 | .... | .014 | .0002 |
| 10% sugar | 1 sauce dish carrots | 9 | 1 | 0 | .... | .016 | .0006 |
| Total | | 256.5 | 77 | 73 | 1991 | 1.211 | .0172 |

Examine the totals in grams for carbohydrate, protein, fat, calcium and iron. How do they tally with our estimate of Tommy's needs?

And how is this diet to be rated in respect to vitamins? Let us see. The egg, milk, whole grain bread and cereal, butter, leafy and raw vegetables, and the fruits are all good sources of the vitamins.

Now multiply the total number of grams of carbohydrate and protein each by 4, the total for fat by 9, and add. Do you get 1,991? That is the approximate number of calories that the diet here given will furnish Tommy to support his activities.

But how many calories does Tommy actually need? What is his energy requirement according to scientific findings? Any textbook in

dietetics will give the total number of calories necessary per day to meet the energy requirement for different ages and different grades of activity of both children and adults. The energy requirement per day of a boy 8 or 9 years old is from 1,800 to 1,900 calories; of a boy 9 or 10 years old from 1,900 to 2,000 calories. The caloric value of Tommy's diet tallies with this estimate. Before we took thought for calories we saw to it that the diet was balanced, that is, adequate in its provision of all essential food constituents: carbohydrate, protein, fat, calcium, iron and vitamins.

Now distribute the foods in this day's diet between breakfast, lunch and dinner:

*Three Meals Based on the Typical Diet for Tommy, Aged 9*

| Food | Household Measure |
|---|---|
| *Breakfast:* | |
| Orange | 1 medium |
| Oatmeal, cooked | ⅔ cup or 1 sauce dish |
| Milk | 1 cup |
| Sugar | 2 teaspoonfuls |
| Bread, whole wheat | 1 slice |
| Butter | 1 teaspoonful |
| *Lunch:* | |
| Egg | 1 |
| Macaroni, Flour, Milk, Butter } White sauce } Creamed macaroni | 1 scant half cup or 1 scant sauce dish; ¼ tablespoonful; 4 tablespoonfuls; 1 teaspoonful |
| Bread—whole wheat | 1 slice |
| Butter | 1 teaspoonful |
| Tomato, Iceberg lettuce } salad | 1 medium; 3 leaves for garnish |
| Apple, Molasses } baked apple | 1 small; 1 heaping tablespoonful |
| Milk | ¾ cup |
| *Dinner:* | |
| Meat—cooked | 2 ounces |
| Potato | 1 medium |
| 5 per cent vegetables—spinach | 1 sauce dish |
| 10 per cent vegetables—carrots | 1 sauce dish |
| Bread—whole wheat | 1 slice |
| Butter—for bread and vegetables | 1 tablespoonful |
| 20 per cent fruit—bananas | 1 small |
| Sugar for banana | 1 teaspoonful |
| Sponge cake | 1 piece—2½ by 2½ by 2 inches |
| Milk—for fruit and to drink | 1 cup |

Dr. L. Emmett Holt estimated that 50 per cent of the total number of calories in a diet should be derived from carbohydrate foods, 15 per cent from proteins and 35 per cent from fats. His apportionment still holds good. And let us remember the essentials in a child's daily diet: from 3 to 4 cups of milk; 2 servings of green vegetables (one raw); 2 servings of fruit (one citrus or a tomato); 2 servings of protein foods; foods from the carbohydrate group to complete the caloric requirement and to include 1 ounce of butter and a portion of whole grain bread and cereal.

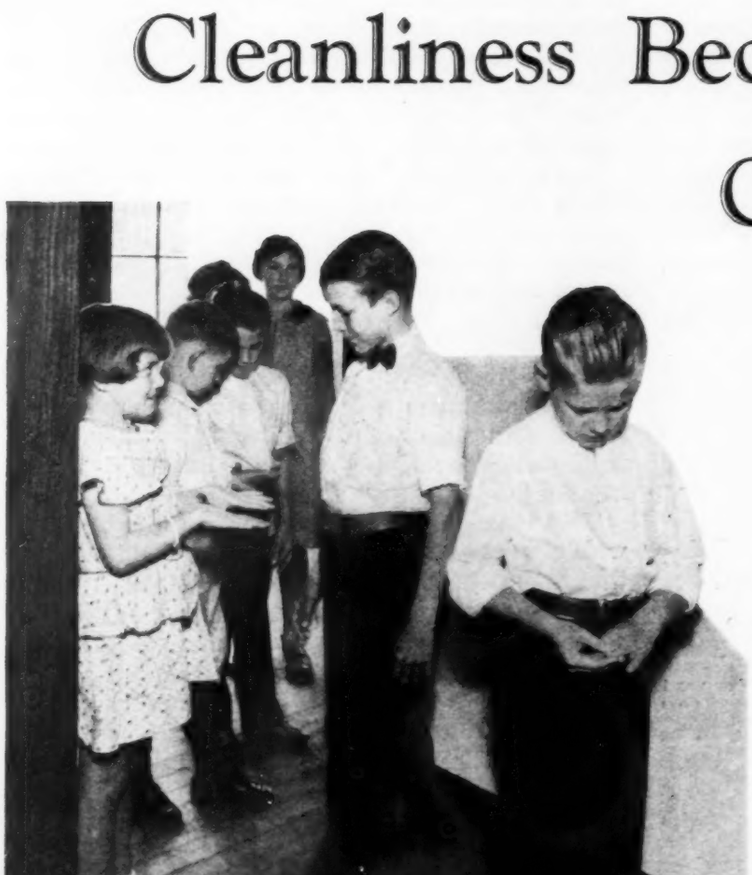
### *Food Values Are the Same in All Lands*

Our appreciation of these needs, and the interest of parents, combined with satisfactory social and economic conditions, will help to fulfil these essentials for healthy, normal growth in childhood.

This suggests a word concerning the children who come from foreign lands with food customs that seem strange to us. Yet the foods of all nations are fundamentally the same and of the same food value—meat, the grains, vegetables, fruit, milk and eggs. Only methods of preparation differ. The people of many European and Asiatic countries, for instance, preserve milk in their famous cheeses, good sources of calcium and vitamins. Indeed, analysis of the diet of the foreign-born will prove that these foods are well adapted to meet the body's requirements.

So the game is won; we have achieved our goal! Will you be able now to test the daily diets of the children who come to you, as to their adequacy in the necessary food constituents, and perhaps also show other mothers how these things should be? Will you be able to analyze your own diet as well, and so help yourself to better health?

# Cleanliness Becomes Contagious



Courtesy of Cleanliness Institute

*Review of the Cleanliness Brigade.*

By

*Grace T. Hallock*

IN MANY schools as soon as children want to be clean they can be clean. Hot running water, soap and individual towels await them downstairs or across the hall. Keeping the schoolroom tidy means simply dropping waste paper in the basket and putting away books and handwork in their proper places. The janitor does the rest.

For other children the establishment of cleanliness habits means hard work on the part of both children and teacher. Cleanliness teaching must arouse a desire not only to be clean but also to perform the labor necessary to make cleanliness possible. And thereby hangs a tale.

The school board in a certain country district built a fine new schoolhouse not so long ago. Unfortunately, the building faces north, and as a consequence the schoolroom never has any sunlight. In the winter, water freezes on top of the stove overnight even with a fire in the stove. The desks are the original ones that the district bought when the country was first settled. In the school library are twenty-five books bought twenty years ago.

Until a year ago cleanliness teaching in this school was unheard of. The children were clean or dirty according to the training and facilities for cleanliness in their home environment. As for the schoolroom itself, the contract for cleaning it had been let out to persons who dashed a couple of pails of cold water over the floor, mopped it and called the job done. The desks, stove, woodwork and windows were never touched. Indeed, the storm windows had not been taken down for three years.

To this school last year a man teacher was appointed. He decided to add a little cleanliness to the curriculum. To do this he was obliged to use recess and after-school hours or the parents would have objected. They believed that children went to school to study lessons or recite. To them busy work and construction work were as out of place in school as in church.

Personal cleanliness came first. To achieve this the teacher let it be known that cleanliness is a privilege worth any amount of trouble to secure. A "wash outfit" for school became to the children the "substance of things hoped for." This led to the acquirement of a large dry-goods box that was metamorphosed into a washstand by the addition of an oilcloth covering, a basin,

and a soap dish. The girls of the school volunteered to keep it clean, and they did. As the school board did not allow money for towels and soap the children brought their own towels and took them home to be washed when dirty. Families took turns in supplying soap. Warm water was obtained from a pan of water kept on the stove to supply moisture to the room. The boys carried water for drinking and washing from a farm about 80 rods from the school. In cold weather when it was hard to carry water, the teacher brought in snow to fill the pan. With this equipment all the children were soon washing their hands before meals.

*Courtesy of Cleanliness Institute*

*Getting ready for inspection.*

"At first," says the teacher, "the boys were careless. They got dirtier than the girls in their play. But the girls watched themselves and kept clean all the time. In class we often had pupils inspect one another. The girls made the boys feel cheap in a nice way that did not cause hard feelings. Sometimes after they were back at the desks following play the boys would notice their hands and ask permission to wash. I never once refused such a request and they always felt free to ask. In that way, they felt it was really important."

Then the pupils on their own initiative decided to clean the schoolroom. The teacher had expressed a desire to look at the view from the windows but, alas, he could not see through them. The pupils had wished to decorate the windows, but they were too dirty! Soon the children were complaining to their parents of the way in which the schoolroom was cleaned. It was not a case of "teacher said"; it had been done too subtly for that.

The pupils agitated so successfully that their parents consented to the sacrifice of book learning for one half-day so that their children might clean the schoolroom themselves. The boys carried water and the girls scrubbed. Blackboards, woodwork and desks were attacked with rags, mops, soap and water. The inside windows were taken out by the teacher and two of his huskiest boys, because the storm windows had been put in to stay. The girls stood on boxes to wash the storm windows on the inside and on the teacher's car to clean them outside. The last process was a dry rub as it was so cold that the water froze on the outside panes.

This was not a sporadic outbreak of cleanliness. It lasted throughout the term, and before the close of school the girls were even brushing down the walls with rag-covered brooms.

If you ask this teacher how he did it, he says he did not do it. He let the pupils do it. He suggested, but it was their school, their health, their self-respect. They were not working for him; he was working with them. "All winter," he says, "they did things, not because I wanted them to, but because they wanted to." The teacher stirred up enthusiasm and the pupils did the work. All of them had a grand time. As for the parents, "they certainly opened their eyes. They had never seen anything like it before."

# Trials and Joys of Little Life

By BELLE COATES and GRETCHEN DONOHUE

I'm Captain Little Life of the Swat-That-Fly Brigade. I'm protecting Fort Happy Home against Filthy Flies.
I show no mercy for these dread enemies. I swat to kill — every time.
And here's why. I've actually seen Filthy Flies crawling over rotting garbage and things like that.
Then to sneak right into Fort Happy Home and walk on my clean plate and drink my milk.
Of course, I wash my plate and throw my milk away I wouldn't eat anything a Filthy Fly had touched.
There! I got that one. He'll never be able to spoil my food and make me sick.
Halt! You can't come in this bedroom and crawl over our baby. Swat! Bang! Another one.
Buzzing for mercy will not help you. Hmm! A hole in that screen! It must be mended at once.
The battle's won, the enemy destroyed. Now to guard all screen doors so no more Filthy Flies can enter Fort Happy Home.

# Snickles and Snortles

## *the Circus Twins*

*"Hey, Snickles, it's time to get up."*

By

NELLIE G. HERRIMAN

### Chapter II

"SUNRISE, baths, breakfast and a 'good morning' to you," called Grandmother's jolly voice from the foot of the stairs.

"Good morning, Grandmother," answered Snortles, and he leaned over and shook Snickles, who lay on the other side of the broad bed. "Wake up, sleepyhead! Grandmother is calling."

"Aw, yes, I heard her." Snickles pulled the blanket over his head and turned his face to the wall.

Snortles pulled the blanket off his brother's shivering body and punched him with a sturdy fist. "Hey, Snickles, it's time to get up!"

"Give me back that blanket, and go on and take your bath. I'm tired." Snickles snatched the blanket and burrowed deeply into the warm comfortable bed. It was a crisp autumn morning, and the white curtains fluttered in the breeze that poured through the open window.

"Gee, that air is grand!" Snortles turned three somersaults and did a lively little jig on the blue rug. "Come on, Snickles; it's great to be up."

There was no answer from the boy who was huddled under the downy blanket. Snortles leaned over the bed and pulled the covers away from his brother's face.

"You're not sick, are you?" he asked anxiously.

"No, of course not. Go away and let me finish my sleep," Snickles said crossly.

"But why are you tired? We did the same things all day yesterday, and I feel great." Snortles' eye fell on a bright bit of paper that showed under the edge of the pillow. He lifted up the pillow, and brought out a large book with a red cover. "Oh, is that the reason you are tired? Say, brother, I'll bet you read half the night. You'll never get to be a regular clown that way."

"Aw, one night won't make any difference," growled Snickles.

"Oh, won't it? Then why are you such a crosspatch this morning?"

"Boys!" It was Grandmother's voice again. "Come, now, you must get up."

Snickles groaned and rolled wearily out of bed. Snortles sang and whistled as he bathed and dressed, but Snickles sat on the edge of the bathtub with his eyes closed when it was his turn to bathe, until Snortles shook him awake. At last he was bathed and dressed, but in a bad humor. Snortles gave the wondering little monkey Dandy, who was Snickles' own special pet, his bath and brushing for the morning. Dandy was one of the most loving little brown monkeys you can imagine, and he chattered and patted Snortles' cheek with his tiny hand in thanks for the bath, which he loved. Always before, Snickles had bathed Dandy, and the monkey seemed to know that something was wrong, for he gazed at his owner with surprised eyes, but liked the bath that Snortles gave him almost as much as those his own Snickles gave him other mornings.

Snickles ate little breakfast and sulked when Grandmother asked him whether he were ill. In fact, he was so unlike his usual cheerful self that the morning was spoiled for the entire household. There were nuts to be carried from the woods and stored in the cellar, but I'm

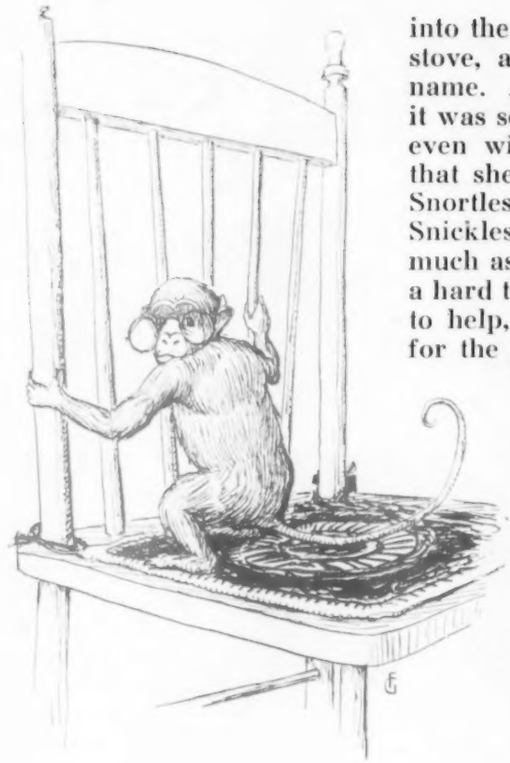
afraid Snortles did most of the work, although Snickles went with him.

When they came back to the house Grandmother was searching all about the kitchen for something. She looked on the table, under the table, in every cupboard, on the floor—in fact, she looked everywhere.

"Well, I declare," she said, "where can they be?"

"What have you lost, Grandmother?" Snortles asked.

"My glasses. I'm sure I laid them down here on the table when I put the potatoes in the oven, but now they are gone. Perhaps you can find them for me; my eyes are so dim that I can hardly see. I should have obeyed my mother when I was a child. She often scolded me for reading in bed and by flickering lights, but I thought I knew what was best. How I wish I had listened to her!"



*Dandy thought they were having a game.*

Snickles, looking very red, hid his face from Snortles.

Just then there was a loud chattering in the corner. There sat Dandy, trying to put the glasses on his face where his nose should have been, if he had been given a nose.

"Oh, Dandy, please give them to me!" cried Snortles, going to the monkey.

Dandy evidently thought they were having a game, for he chattered gleefully and climbed across a chair. Up above the window he went, holding the glasses on his face.

"Please come down, Dandy," coaxed Snortles, but Dandy refused to move. "You ask him, Snickles, he will obey you, I know."

"You come down from there!" shouted Snickles, in such an angry tone that the poor little pet quivered in fright and dismay. He had never heard his master speak so before. "Give me those glasses," shouted the boy.

The monkey jumped down in his alarm, and the glasses flew from his paw. To the floor they fell, and a tinkling sound told the boys and their grandmother that the spectacles were broken.

"I'll have to send them to town to have them repaired," said Grandmother. Snickles had expected a scolding, but she said nothing else.

Poor Grandmother had quite an unhappy time while her glasses were gone. She bumped into the furniture, burned her hand on the stove, and called the boys by the wrong name. As they were twins and much alike, it was sometimes hard to know them apart even with good eyes, so it is no wonder that she called Snickles when she wanted Snortles, and tried to put Snortles' hat on Snickles' head. The boys helped her as much as they could, but even then she had a hard time. Snickles tried especially hard to help, for he felt that he was to blame for the accident.

When they went to bed that night, the red book was on the table beside the bed. Snickles, looking at it, thought he would wait until the next morning to read it, but then he remembered what an exciting time the hero was having.

"I'll read for just five minutes," he said, rolling his pillow so that he could see better. "Just five minutes won't matter."

Snortles dropped off to sleep. The book was exceedingly interesting. The room was quiet. It was long afterward that Snickles heard the clock strike across the hall. "Bong! Bong!" it said warningly. "Must be 9 o'clock," thought Snickles, and waited for seven more strokes. But they didn't sound. It was 2 o'clock! How had he missed all those hours in between? He had never thought the book would make him forget time, sleep and everything.

The next morning he was even crosser than before. He refused to get up, even when Grandmother called the third time.

"I don't want a bath this morning," he told Snortles. "I'm not really dirty. Grandmother won't know."

"She'll see me going to the bathroom, but if you don't go she'll certainly know that you didn't have a bath, and you know what she'll think about that!"

*There were nuts to be carried from the woods.*

"Oh, yes, that's right. Say, Snortles, I have an idea!"

"What is your idea?"

"You go and have your bath, then come back here and get Dandy and go again. Grandmother can't see without her glasses, and she'll never know."

"But it wouldn't be right to deceive her that way," Snortles objected.

A sly look crossed Snickles' face. "But she would be worried if she knew how badly I feel," he said softly. "You would not be deceiving her; you would only be saving her from worry."

"Hmm!" replied Snortles thoughtfully. "Perhaps you are right. I would do anything to keep Grandmother from being unhappy. Yes, I'll do as you wish. After I've had my bath I'll take one for you, and even give Dandy his."

"I'll do something fine for you some day," promised Snickles, rolling into bed again. "Wake me when you come back for Dandy, so that I can be dressed when it is time to go downstairs."

Grandmother saw one little boy in pajamas cross the hall to the bathroom, and heard a great splashing and puffing.

"Snortles is having a good time in his bath," she said happily to herself.

Soon the little figure went back to the boys' room; in a moment the door opened and a little boy with a brown monkey in his arms went across the hall. Then there was a greater splashing than before, and a happy mixture of chattering and singing.

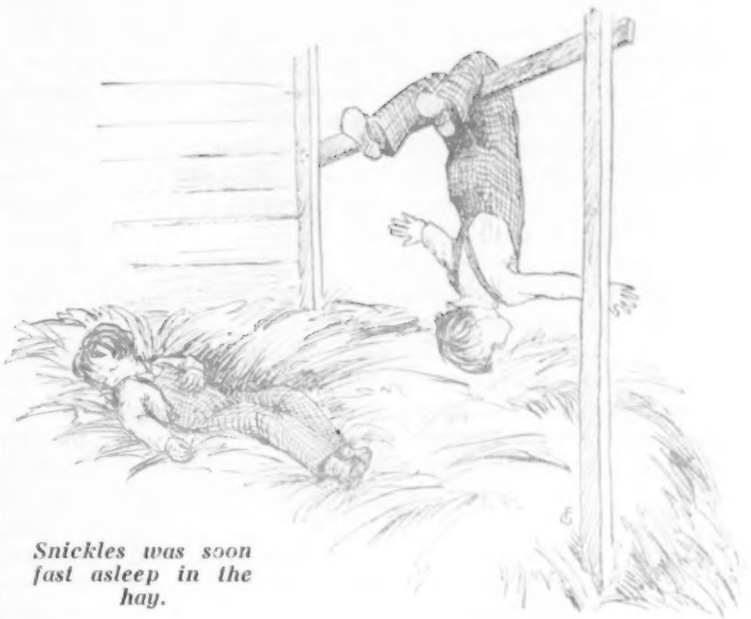
"Bless me, Snickles and Dandy will be clean as can be," said Grandmother.

If her eyes had been a little better she would have seen that one little boy looked much brighter and fresher than the other when they came down for breakfast; Snortles was dancing and laughing, while Snickles lagged wearily behind him.

"Grandmother, I've an idea," said Snortles. "I have been thinking that Snickles and I should practice a lot of stunts, now that we are becoming so strong and healthy. If mother should come we would be all ready to learn the act she will have for us. Just think, we should then be real-for-sure clowns in just a little while."

"Dear me, I had almost forgotten that you would be leaving me some day," said Grandmother sadly. "I shall be sorry to have you go back to the circus, for this will be a lonely little house when you and Dandy are gone. However, I'll be proud to know that my two little grandsons are clowns in a big circus and are spreading sunshine and laughter everywhere they go. Your idea is a fine one, Snortles; when do you expect to begin?"

"This very day," said Snortles. "I want to start just as soon as I possibly can."



*Snickles was soon fast asleep in the hay.*

"Oh, shucks!" yawned Snickles, leaning his head on his hand. "Let's wait a day or two."

"Why, Snickles, I never knew you to be this way!" said Grandmother. "I'm afraid you are ill."

"He was only joking," said Snortles hastily. "Weren't you, Snickles?"

"Of course," said Snickles.

After the chores were done, the boys went to the big hay-loft, where there was plenty of room to practice and soft hay to fall on if they should make a mistake. Snortles rolled and tumbled, turned handsprings, stood on his head and had a glorious time. Snickles rolled around a little, then found himself a nice, soft, smooth bit of hay and was soon fast asleep.

The next day was just the same, and the next and the next. Grandmother's glasses didn't come, and one little boy had two baths each morning, while the other had none. One little boy became droopier and droopier, while the other practiced on the hay until he was quick and strong as he could be. Snickles had finished the red book and started a blue one; he finished that and was too lazy to start another. At night he lay awake and wondered why he felt so dull and listless, while his brother lay on his side of the bed and dreamed of the day when he should be a really fine clown, and the people should laugh and clap when they saw him coming. In the morning Snickles never felt quite able to get up and take his cold bath and was glad to have Snortles do it for him. Dandy had become so fond of Snortles that he seemed to feel that he had a new master. Snickles sometimes felt a little jealous but usually yawned and fell asleep before he had much time to think about it.

One morning Snickles awoke with a queer, choked feeling in his nose. "A-chew!" he said.

His grandmother brought medicine and gave it to him, and put a cloth about his neck, but still he felt miserable. Chills raced up and down his back and played hide-and-seek on his toes. His head felt many times too big for his body, and there was a queer roaring in his ears.

"I'm sorry you are sick," said Grandmother. "I had a surprise for you and Snortles today."

"What is it?" asked Snortles.

"I'll tell you, but I'm afraid the surprise will have to wait until Snickles feels better. I had a letter this morning from the superintendent of the children's hospital. He wanted me to bring you boys and cheer the children up a little. He thought you would be able to amuse them with some of your circus tricks."

"Oh, goody, goody!" shouted Snortles. "Hurry and get well, Snickles; maybe we can go tomorrow."

"Bring me some more medicine, Grandmother," sniffed the sick boy. "I've just got to get well right away."

He was able to be up the next day, but Grandmother would not take them to the hospital until he was entirely well.

"Just think how bad it would be if you should carry your cold to those poor little children," she said.

Two days later they went to the hospital, the boys dressed in their best clown suits and Dandy washed and shining.

Two long rows of little children turned eager eyes on them, and excited voices made them welcome. A nurse in a stiffly starched uniform led them between the little beds, and tiny hands timidly touched the red and white suits, and patted Dandy's little head.

"Gee," whispered Snickles. "Did you see that poor little fellow in the last bed? Did you see how gray and crooked he is? It must be awful to look like that!"

"Yes, I saw him," answered Snortles. "Poor little chap!"

"Would you boys like to show us some of your tricks?" asked the nurse, while Grandmother went about comforting the little sufferers.

The boys ran to a vacant space in the middle of the room and showed all their old tricks, while Snortles was able to show them some new ones besides. The children laughed and clapped their hands, and Dandy ran about enjoying himself immensely.

"Show us some more," begged the children. Snortles ran out and did all his tricks over again, and then Snickles tried to do his by himself, making quite a sorry mess of it.

"Hurrah for Snortles!" shouted some one, and "Hurrah for Snortles" was heard from all sides. "We like him the best. We like Snortles!"

Snickles felt badly but didn't know what to do. The nurse saw that he was unhappy and thought she would help him.

"Snickles did very well, too," she said. "Don't you like him?"

"Oh, yes, of course, but we like Snortles. See how pink and white he looks and how quickly he moves. We like Snortles."

Just then a small voice spoke from the far corner. It was the poor, gray, twisted little boy whom Snickles had noticed.

"I like Snickles," he said. "I like him the best."

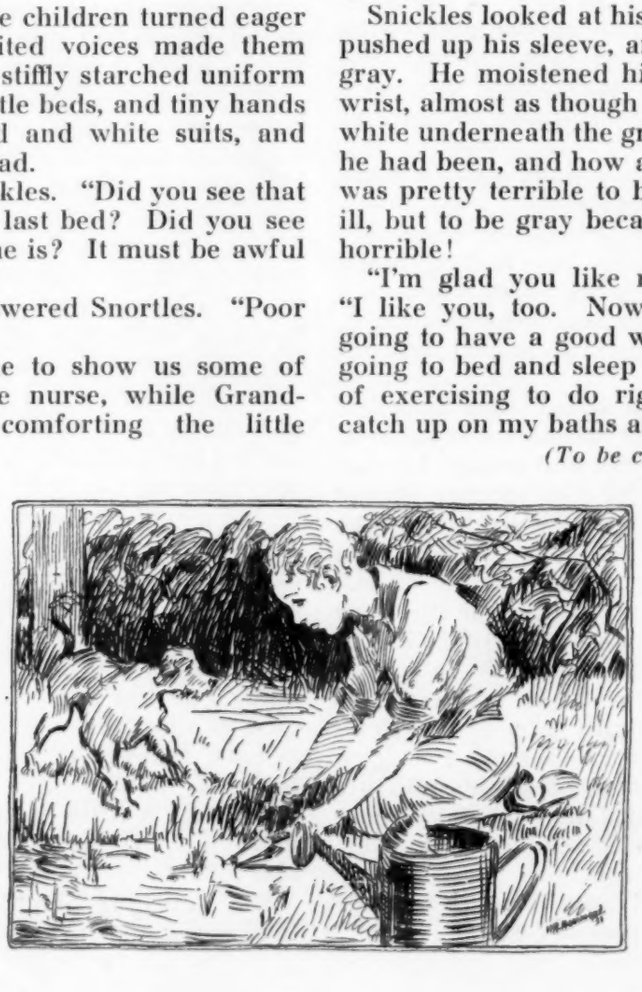
Snickles turned eagerly to the little sick boy. "Why do you like me?"

"I like you 'cause you're just like me. You're all gray, an' thin, an' crooked. You're just like me."

Snickles looked at his hand. It was gray! He pushed up his sleeve, and saw that his arm was gray. He moistened his finger and rubbed his wrist, almost as though he were afraid. He was white underneath the gray! My, how frightened he had been, and how ashamed he still was! It was pretty terrible to be gray because one was ill, but to be gray because one was dirty—how horrible!

"I'm glad you like me, little boy," he said. "I like you, too. Now, I'm going home. I'm going to have a good warm bath, and then I'm going to bed and sleep and sleep. I have a lot of exercising to do right away—as soon as I catch up on my baths and sleep, I mean!"

*(To be continued)*



# HEALTH and the SCHOOL

*Edited by J. Mace Andress, Ph.D., 67 Clyde Street, Newtonville, Mass.*

## *A Year-Round Application of May Day*

IN 1924 when it was a new project, May Day, or Child Health Day, was taken quite literally in most communities as just another day for concentration on a subject which was afterward to be forgotten for a year. Now, in 1932, it is recognized as having a 365 day meaning. It has also developed from an occasion sponsored by one agency to an inclusive plan of cooperation among all agencies concerned with the child.

### *Cooperative Plan for May Day*

The first day or week of May, or the whole month itself, has become a period for checking results, for calling attention to what has been done during the last year and for making plans for the year ahead. In order to provide some sort of common ground for May Day programs, each year a particular aspect has been selected on which to concentrate. A slogan is chosen, and around this each community centers its individual campaign. Last year the slogan was "Community Responsibility and Cooperation for Child Health and Protection," a natural outcome of the White House Conference on Child Health and Protection. This year the slogan is "Support Your Community Child Health Program: It Protects Your Home." A campaign based on this central idea cannot but give splendid opportunities for cooperation between the home and various agencies, such as the school.

Judging from the reports of last year's May Day child health day programs throughout the nation, the schools played an important part in promoting the aims set forth by the state and county chairmen. Nor was the part played confined to parades and celebrations, which wide-awake communities are either doing away with or relegating to a minor place in their May Day programs. One or two examples of school cooperation will show the possibilities for real health education that a May Day campaign holds for teachers who are "on their toes."

In one medium sized city in the Middle West last May, a so-called May Day conference was held for three days. The committees were planned after the manner of the White House Conference, but all studies were confined to the one city rather than to the United States as a whole. Committee A was called "Healthful Living Through the Twenty-Four Hour Day" and was composed of five subcommittees. One of these subcommittees studied the home's contribution to health education and had as chairman the parent of a school child; the other three members were a school nurse, a classroom teacher and a principal. The chairman, who was a member of the Parent-Teacher's Association, sent a letter to sixty-one principals and teachers, representing twenty-one schools. She asked each teacher to call a meeting of parents of the children in her room for the purpose of obtaining facts regarding the home health habits of their children. As a result, 397 mothers attended and 1,313 children were represented. The mothers were asked to list facts about the health habits of their children while at home, and the following statistics resulted from these meetings: health habits being practiced in the home, 129; health habits which, in the parents' opinions, are difficult to establish, 101; health habits on which mothers wished aid, 71.

### *Formulate Definite Health Program*

From this material the committee reached four definite conclusions and made the recommendation that "some form of health education be established whereby parents may get a better knowledge of how to direct their children in desirable health habits—mental, emotional, social, and physical." A detailed plan was carefully worked out. The cooperation of that plan has formed a considerable part of the city's 1931-1932 May Day program.

In one of the big Eastern cities, the May Day committee, of which the city commissioner of health was chairman and the superintendent of schools was a prominent member, decided to focus attention on the examination of preschool children and the correction of defects discovered.

In each elementary school a survey was made of children who had brothers or sisters of preschool age. Each child was given a letter to take to his parents from the superintendent of schools. This letter urged the parents to take their preschool children to their family physician or to a nearby clinic for physical examinations and the correction of remediable defects. Simple health literature accompanied the letter.

### *Enlist Aid of Physicians*

Meanwhile the physicians of the city were approached and their aid was enlisted in making these physical examinations, especially during the weeks immediately before and after May Day. Last fall, a number of schools in this city required a report of the physical examination of each child entering the school.

After considering the reports of school principals the committee feels that much interest was aroused and that a great deal of practical attention to the correction of defects resulted from the efforts to put the principal of each elementary school in touch with the families of the children enrolled.

One rural school had only fourteen pupils and a teacher with vision and a desire to do something permanent for the health of those children. She called her idea The Farm Beautiful, and she and the children worked out plans for the most beautiful farm home they could picture, always making it a practical possibility for their own homes. Of course they could not have beauty without sanitation, and sanitation was of no avail unless the people who lived in the home were up to date in their use of the best living facilities. Mothers were consulted and were invited to the school on May Day, and they saw a model Farm Beautiful in the sand table. This teacher had the sat-

isfaction of actually seeing changes for the better in home conditions and the development of home health habits as a result of her efforts.

In another rural district, in a far Western state, one of the small county schools published a monthly paper containing articles on health —health news and reports on tonsillectomies and dental repairs among the students.

Many practical and worthwhile ways of using the device of National Child Health Day can be worked out by teachers and principals, using the 1932 slogan, "Support Your Community Child Health Program: It Protects Your Home." A booklet of practical suggestions is published by the American Child Health Association and can be obtained by writing to the association at 450 Seventh Avenue, New York City. The four aspects of child health to which special prominence is given this year are nutrition, maternal and infant welfare, clean and safe milk, and recreation. The first and fourth topics lend themselves well to health education programs given by the school in cooperation with other agencies and with the home; for example, in the booklet of suggestions, under the heading "Education and Training," are two outlines in question form, one dealing with recreation in school and the other with the teaching and practice of health habits, including the school lunch. A thoughtful teacher can, if necessary, work out her own 1932-1933 May Day program on these outlines alone.

## TEACHING HEALTH

*(In this column will be published each month concrete examples of good health teaching. Teachers are invited to send in contributions not exceeding 600 words and preferably less to the editor of this department. Illustrations of the actual work of children will be welcomed. Contributions accepted will be paid for but no manuscripts will be returned.)*

## COOPERATION OF NURSE AND TEACHER

CARMELITA stood wriggling, along with the other second grade children, waiting her turn for a health examination. One could easily identify Carmelita by her quick furtive movements and her ready retort. This day she advanced in line until she reached the position next to the child who was being examined; suddenly she was no longer there. Nobody had actually seen her depart. Why and where had she fled so precipitately? The principal of the school, who had previous knowledge of her disappearing propensities, dispatched Carmelita's brother for her, and soon the two appeared, the boy dragging the girl behind him by sheer physical force.

One day Carmelita asked for a card to go to the dentist. She promised faithfully to keep the appointment. She arrived at the proper time, but another child was still in the dental chair. The moment she heard the dentist dismissing his patient, Carmelita slipped away. Perhaps she expected the dentist to leap after her and was disappointed at his nonchalance. In any event, she soon reappeared, mounted the chair without invitation, and visited freely with the dentist as he worked with her.

A few days later Carmelita came to school sobbing that her mother had thrown herself on the floor and threatened to kill herself. A home investigation revealed a most unstable family situation.

What has this to do with educating Carmelita? Must the school concern itself with the behavior of the Carmelitas and their families?

### *Social Education Is Essential*

Teaching is an old profession. Of course everybody knows what the teacher does at school: She teaches thirty or forty squirming children to read and write and cipher. But does everybody know that education has assumed a broader responsibility during the last decade or two? Does everybody know that the teacher is vitally concerned with the modification of social behaviors as well as of mental achievements? Only that education is counted of supreme value which makes a desirable difference in the way our Carmelitas live.

School nursing, on the other hand, is a relatively new departure in education. It is a common question asked of the nurse, "What do you do all day at school?" School nursing has been defined as the application of the principles of public health nursing to work with the school child in his total environment of home, school and community. School nursing, then, is a part of the great public health movement that is sweeping over our country, penetrating into our public and private lives, into our schools and our industries. Its great aim is health conservation and health promotion through health instruction. Here again, only that health education is counted of supreme value which makes a desirable difference in the way we live.

Thus, we have two great converging forces—the forces within the school, reaching out to the home and the community, and the forces of public health in the community reaching out to the home and the school. Yet as great as these two forces are, they are as nothing compared to that great force, the home, which has the power either to augment or to put at naught the other two forces. The school has extended its influence far beyond the doors of the school building.

The school of today wants to know many things about its pupils. Obviously, the teacher wants to know the mental quality of her students; she must know their ability to learn and something of their past and present achievement. But this is by no means sufficient. She must know the physical condition of her students—their nutrition, their physical vitality, their physical handicaps, either correctable or uncorrectable, and their emotional stability. She must know the condition in the home—its economic, social and cultural background; the conditions of study at home. She must know the child's total program of work, study and recreation. In other words, she wants to have a fairly clear picture of the way he lives during the twenty-four hours of his day. To the degree that she knows these and other things will her contributions make a difference in his present and future behavior.

### *Aims Are Identical*

The questions that immediately arise are the following: How can the teacher best secure this information? What can the nurse contribute to the teacher's better understanding of the child? What can the teacher contribute to the better understanding of the child? How may the school and the home work for better understanding? Who within the school should plan that program which shall promise the best returns, and what shall be the working relationships? Cooperation furnishes the clue in each instance.

Cooperation in its very nature suggests identical aims. If two or more persons work together, obviously they must work together toward the same goal. Is the goal of the teacher compatible with that

of the nurse? The primary purpose of the nurse working with the school child should be to help the school accomplish better and quicker its aim of desirable behavior. The aims of the teacher and the nurse are, therefore, identical.

Cooperation also implies a mutual understanding. The nurse not only must appreciate what the school is trying to accomplish but must also be able to help the teacher understand fully the contribution that the nurse is able to make toward this accomplishment, and each must have respect for the contributions of the other.

Having as a starting point identical aims, mutual understanding and mutual respect, there remains but to plan a program that will result in better health behavior for the individual child. The child is an entity; therefore there should be but one program, considering the whole child. The child, the home, the teacher, the nurse and other contributors to the health program should be considered in planning. The joint program having been planned, the next step is that of well defined working relationships between the various contributors. Mutual respect and understanding are here powerful assets. There is no formula that can be applied to every situation. Working together involves the interplay of personalities. A well adjusted personality finds ways of effective interchange of ideas.

Cooperation thus assumes understanding of the larger aims of education, mutual respect and understanding, a carefully planned program centering about the child and his needs, and specific activities carried out by the persons best fitted. Success in this program will be dependent on the personality adjustment of its participants.

MARY ELLA CHAYER,
Teachers College,
Columbia University.

## TEACHING HEALTHFUL LIVING TO FIRST GRADE PUPILS

IF HEALTH education is a way of living, the classroom teacher who uses all the opportunities in the school day to help the child live healthfully is teaching healthful living. In doing this she helps him to see reasons for each behavior reaction. If she gives him enough knowledge for his understanding of the problem and an opportunity to practice the behavior with satisfaction, she is helping him to face his own problems in healthful living and to find ways of solving them.

It is not necessary to make a place in the curriculum for healthful practices any more than it would be to make an opportunity for any other of the school activities. The opportunity is there. May the teacher use it to enrich the child's knowledge and practices in good living.

This does not mean that we should put the label "health" on what we do or help the children to do. Health is an abstract term of little meaning to the child. Neither is it necessary to use the label "healthful." It is enough for the child to know that there are desirable ways of performing the everyday practices, and to know why these ways are desirable. Healthful living should be integrated in the activities of the school day, thus utilizing life situations in teaching the children how to live. It is the teacher's responsibility to find the health needs of children in her group and to make use of this knowledge in planning to help them in all possible ways.

Opportunities for teaching healthful living will differ with each day's program, and in each grade. New activities bring new opportunities as well as new needs. According to the report of the committee on the school child, investigating for the White House Conference on Child Health and Protection, "education in the school should utilize all opportunities in the situations and activities of the child's life, over which the school has influence, in aiding the child to develop his capacities for physical growth and development, for mental and emotional poise, and for satisfying social relationships and adjustments."

NINA B. LAMKIN,
Teachers College,
Columbia University.

### ACTUAL SITUATIONS IN A SCHOOL DAY WHICH A TEACHER USED IN HELPING CHILDREN IN THE FIRST GRADE TO LIVE HEALTHFULLY

| *Teacher Activities* | *Children's Activities* |
|---|---|
| Giving freedom to the children in entering the building, putting away wraps, and entering the schoolroom in a natural way. | Learning to take care of themselves in entering the building, putting away wraps in orderly fashion, and going to the room where the group is to live together that day. |
| Preparing the room for their coming. It is an attractive place with many, but not too many, materials suggesting activities not too difficult. Arranging ventilation, lighting and heating. Arranging tables and chairs in comfortable and orderly fashion. | Showing interest in the materials in the room: the parrot, the goldfish and the pictures. Showing an interest in the group with whom they live. This is life. Choosing tables and chairs of comfortable height. |
| Having a "Good Morning" for every one. Welcoming each child to the group—the best kind of a start in group living. | Practicing a social courtesy and having a feeling of belonging to the group. A feeling of social security. |
| Omitting formal morning inspection but seeing that every one is ready for the day's work. No need for morning inspection. Many crimes are committed in its name. | Preparing for the day's work through their interest in the work and their attitude toward cleanliness. |
| Considering individual differences. The work of each child is commented on. Each child is encouraged by helpful criticism and approval. | Concentrating earnestly on the work at hand, in a happy and cheerful mood. |
| Teaching each child to clean up and put away materials. Teaching each child to be responsible for his part in the community work. | Learning to take their place in the group, and to be responsible for a share of the work. They learn skills, and build attitudes related to cleanliness and orderliness. |
| Using the opportunities offered by the mid-morning lunch period. The noon lunch hour and school parties are also used as teaching and learning situations. | Practicing skills related to handwashing, care of materials used, courtesy at table, responsibility for putting away materials. Responding cheerfully to this kind of discipline. The day is not spoiled by scolding, disapproval and a feeling of fear. Positive behavior reaction is expected. |
| Emphasizing the positive, never the negative: "Charles, I think you could play more quietly," rather than: "Charles, don't be so noisy." | Responding to this type of incentive and learning through doing with satisfaction. Their interest leads them to further activity, and they continue to learn. No gold stars and honor rolls are needed. |
| Using these incentives: help at the right time, approval, encouragement, knowledge enough for an intelligent understanding of the situation, materials suggesting activities, and guidance in choice of activities. | Leaving for home. They have had a happy school day. Each one has achieved in his own way. As a group they have learned some new practices and have used others already learned. |
| Chatting with the parents as they come for the children. Friendliness with parents is the best basis for discussion of the needs of children. | They have work planned for the next day and this gives them something to look forward to! |

## HEALTH MOVIE PROJECT FOR SUBNORMAL CHILDREN

ONE DAY some of my girls told me of a movie they had seen in the New Jersey State School for the Feeble-Minded. After seeing their special interest, I asked them if they would like to make a movie on health. My suggestion immediately created a new incentive for work in hygiene.

The children decided with my help that they would make a movie about the health-building habits of their daily lives.

Some of the suggested topics were discussed, such as proper meals, exercise, play, sports, games, posture, teeth, fresh air and proper sleep.

They gathered appropriate pictures from old magazines representing these different phases of health. The pictures had to be selected, assorted and classified This took quite a long time, as the children had to make the decisions as to which were suitable. Many interesting discussions arose. Nevertheless, I felt that this was excellent training in selection, classification and choice.

The next step was to secure a long, narrow strip of wall paper for the pasting foundation.

All the actual work was done by the children, no matter how low their intelligence quotient. However, I made suggestions and criticisms as they progressed.

When the pictures were all pasted in order, one of the older girls who could copy well wrote the titles. All the children learned to read these words from sight. A few pictures were colored with wax crayons.

One girl wrote this original health rhyme beneath the picture of the health twins at the beginning of the movie:

HEALTH TWINS

We are Health Twins as you see,
We eat good food, no coffee or tea,
We play in the sunshine every day,
That's why we are so healthy and gay.

The long strip of paper was put into a painted wooden box (14 by 17 inches). It was fastened by thumb tacks and pasted on the rollers at each side. The rollers were made from a broom handle, with the ends extending about 4 inches above the top of the box. A piece of heavy cardboard or light beaver board (18 by 18 inches) was cut out to represent curtains and the foot of the stage. This cardboard was colored and tacked on the front of the box in order to make an attractive finish.

The children enjoyed showing their movie to visitors and to other classes. The smallest child in the lowest grade could work this type of movie.

This was a successful project in my group because it seemed to meet their special needs. It developed four phases of drawing—cutting, coloring, position and pasting. It developed also a feeling of responsibility in securing material and a sense of selection, choice and classification of pictures.

Reading was stressed to a slight degree, but the greatest phase of development was the actual stimulation of health work. I noted also that a feeling of leadership was brought out in some children when they were allowed to show the movie. Visual projects are impressive, as the pictures remain vivid in the mind for a great length of time.

MARY LEAH SHROPSHIRE,
Vineland, N. J.

## NEW HEALTH BOOKS AND TEACHERS' MATERIALS

TEACHERS who wish to get health material in popular form each month will be interested in a little publication called The American Public Health News.[1] It contains clever illustrations, summaries of facts about important subjects, pithy sayings and wholesome suggestions for healthful living. Teachers with imagination will find many ways to use this valuable publication. These pages are issued each month and are available for local health work. They can be secured in the form of mats, stencils, plates or complete printed bulletins with any local heading.

SINCE health education and all education are more and more being considered in terms of behavior, every health educator is vitally concerned with the development in educational psychology. Professor Trow has written one of the best books in this field, entitled "Educational Psychology."[2] It is not an introductory textbook in psychology since it assumes that the student has already had work in general psychology, but it is written in plain clear language which should not offer any special difficulty. The chapter that teachers of health will probably find most worth while is the one on adjustment, which takes up the character and function of different mechanisms in relation to reality. The bibliography is especially good. The chief weakness of the book from the point of view of the teacher is its lack of practical definite suggestions. In surveying the general field of psychology, one often fails to see the relation to educational problems or perceives it but dimly. For the sake of the students who use this book as a textbook, one wishes that the author might have given some kind of summary with definite suggestions. Evidently he hesitated about this for fear of "indoctrinating" the reader. This makes the text a bit of a challenge to students, who will be stimulated to discuss general psychologic findings and draw their own conclusions. It will be a healthful procedure if the teacher is skilful in formulating problems from the classroom and relating them to the psychology presented.

HERE is an interesting safety calendar, "Safety—A Clean Record,"[3] that has a good deal of "pep and punch" in it. It is sponsored by the Safety Council of Louisville, Ky., and is the cooperative work of several of the schools of Louisville, including the Louisville Normal School. As far as possible the illustrations for each month emphasize some aspect of safety that is especially appropriate for that season of the year.

THE relation between sociology and health education is well recognized in the Health Education number of the *Journal of Educational Sociology*.[4] Mental health, safety education, rest, sleep and honesty are among the topics discussed by various contributors.

FOR many years there has been a great need for a book dealing with school nursing for the school nurses themselves and also for supervisors of health and general education. Unfortunately in many cities and localities any one who has graduated from a good hospital has been regarded by school supervisors as being qualified to begin practical work as a school nurse. There has been this attitude in spite of the obvious limitation of such graduates, who have little practical knowledge concerning the aims and functions of the modern school, mental hygiene, educational psychology, sociology and the spirit and technic of school nursing.

Therefore "School Nursing"[5] by Mary Ella Chayer will be welcomed by school nurses and all others concerned with health in the school. The book is sound in its philosophy and concrete in outlining definite things that school nurses may be expected to know and do.

1. Price $1, annually. Pp. 8. New York: American Public Health Association, 1932.
2. By Trow, William Clark. Pp. 504. Boston: Houghton Mifflin Company, 1931.
3. Louisville Public Schools, 1932.
4. Albany, N. Y., December, 1932.
5. By Chayer, Mary Ella. Price, $2.50. Pp. 292. New York: G. P. Putnam's Sons, 1931.

# New Books on Health

## HEALTH HORIZONS

Compiled by Jean Broadhurst, Ph.D., and Marion Olive Lerrigo, Ph.D., under the direction of the Emma Dolfinger Memorial Committee. Cloth. Price, $3. Pp. 516. New York, Newark, Boston, Chicago, San Francisco: Silver, Burdett & Co., 1931.

THE primary purpose of this publication is to introduce to teachers authoritative sources from which they may select facts of interest in disseminating knowledge of health to pupils. The material in the book has been selected from a wide variety of material and is arranged in chapters, alphabetically. Each of the notes is credited to the source from which it emanated, so that those wishing to do so may consult the original publication. The bibliography which supplements the volume provides the complete data necessary for the consultation of various sources. The book is well printed and should be exceedingly useful.

MORRIS FISHBEIN, M.D.

## FOODS IN HEALTH AND DISEASE

By Lulu G. Graves. Cloth. Price, $3.50. Pp. 390. New York: The Macmillan Company, 1932.

MISS GRAVES is well known to readers of HYGEIA for her numerous contributions to our pages. In this book she has assembled many of these contributions as well as other material. The book provides practical points regarding food materials, their production, their transportation, their care in the home and in the market, and similar subjects. It also discusses the dietetic values of well known foods and considers food preservation and food infections. While it does not offer a scientific treatise on diets in disease it does give basic considerations in this field indicating the reasons for eating certain foods rather than attempting to outline dietotherapy.

The book is offered to all who are interested in diet in relation to health. It is not marked by any special literary quality but is a mine of information on its subject. The publisher has done an excellent job in his part of the production of this book. The paper is of the finest quality, the illustrations are excellently prepared, and the index is sufficiently detailed to be useful.

M. F.

## PHYSIOLOGY OF EXERCISE

By Ferdinand A. Schmidt, M.D., and Wolfgang Kohlrausch, M.D. Translated by Carl B. Sputh, M.D. Cloth. Price, $2.50. Pp. 216, with 44 illustrations. Philadelphia: F. A. Davis Company, 1931.

THIS volume is a translation from a fourth German edition of a widely used book. It covers essentially the same ground as does the book by Gould and Dye, also reviewed in this issue. It is supplemented, however, with certain practical chapters on the subject of gymnastics and on the special value of various forms of exercises; also chapters on the need of exercise by different age groups and athletic types. The Germans as a people take their exercise far more seriously than we do. The American is more greatly concerned with competitive sports. He is far too content to witness the athletic performance of others. The increasing attention devoted to the scientific aspects of muscular action indicates a more general appreciation of the importance of proper training of the human body.

M. F.

## THE GENIUS OF LOUIS PASTEUR

By Piers Compton. Cloth. Price, $4.50. Pp. 361. New York: The Macmillan Company.

TO THE numerous volumes on the life of Pasteur may now be added this new British consideration. The book has not the fire of the Vallery-Radot life nor the scientific atmosphere of the Duclaux contribution; it is, therefore, for the average reader probably more suitable than either of these. It is well printed and handsomely illustrated.

M. F.

## THE HOME AND THE CHILD: HOUSING, FURNISHING, MANAGEMENT, INCOME, CLOTHING

A publication of the White House Conference. Cloth. Price, $2. Pp. 165. Illustrated. New York and London: The Century Company, 1931.

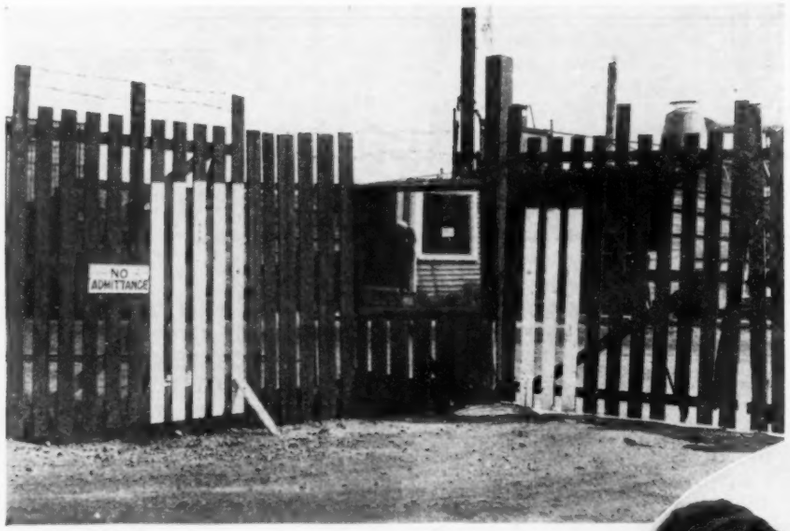
THIS is another of the White House Conference publications. It concerns particularly, housing, and the furnishing and management of the home on various incomes; it also discusses children's clothing. This section is nicely illustrated and apparently condenses in a small space a vast amount of scientific fact relative to the proper clothing for the child. Since the publications of the White House Conference represent the mature consideration of recognized authorities in each of the fields involved, they should be constantly available for reference to all groups interested in the purpose of that Conference. M. F.

## THE CONTROL OF TUBERCULOSIS IN THE UNITED STATES

By Philip P. Jacobs, Ph.D. Cloth. Price, $2. Pp. 407. New York: National Tuberculosis Association, 1932.

EVERY worker in the field of tuberculosis must of necessity be familiar with the material that Dr. Jacobs has collected and which he offers in a systematic volume under the auspices of the National Tuberculosis Association. His book is divided into four parts: the first outlines the history of the antituberculosis movement in this country; the second, the methods and programs used; the third, the policies behind the methods and programs, and the fourth part gives illustrations of the actual workings in various communities. The book indicates a complete familiarity with available literature, and each of the chapters is followed by a list of references which not only lend authority to the statements but also provide for special study. Dr. Jacobs has been a member of the staff of the National Tuberculosis Association since 1908. There is probably no other worker as familiar with the entire scheme of control of this disease as he is. The book should be available for reference to all workers in this field.

M. F.




*Herbert Photos*

### *REFLECTING SAFETY*

**A mirror placed at a dangerous curve enables the motorist to view the traffic situation just around the corner. This novel experiment is carried on at Quincy, Mass.**

### *A GOOD CATCH*

**Flying fish use Santa Catalina Island for their playground. Searchlights of incoming yachts attract these fish by the thousands. One can just pick them out of the air.**

*Herbert Photos*

*Herbert Photos*

**The work of pearl seekers is exceedingly odoriferous because the soft part of the oyster must be allowed to decompose before the search begins.**

*Alvina Lenke*

**Traffic in Paris bows to safety as school children leave their studies for the day.**

*Underwood and Underwood*

This ancient Hebraic medicine man has cure-alls for all known diseases. He sells his wares in the open market of Mosul.

## *DENTAL ESTABLISHMENT*

This Chinese dentist specializes in pulling troublesome molars and certainly believes in advertising, for he displays his tools and the extracted teeth on a table outdoors.

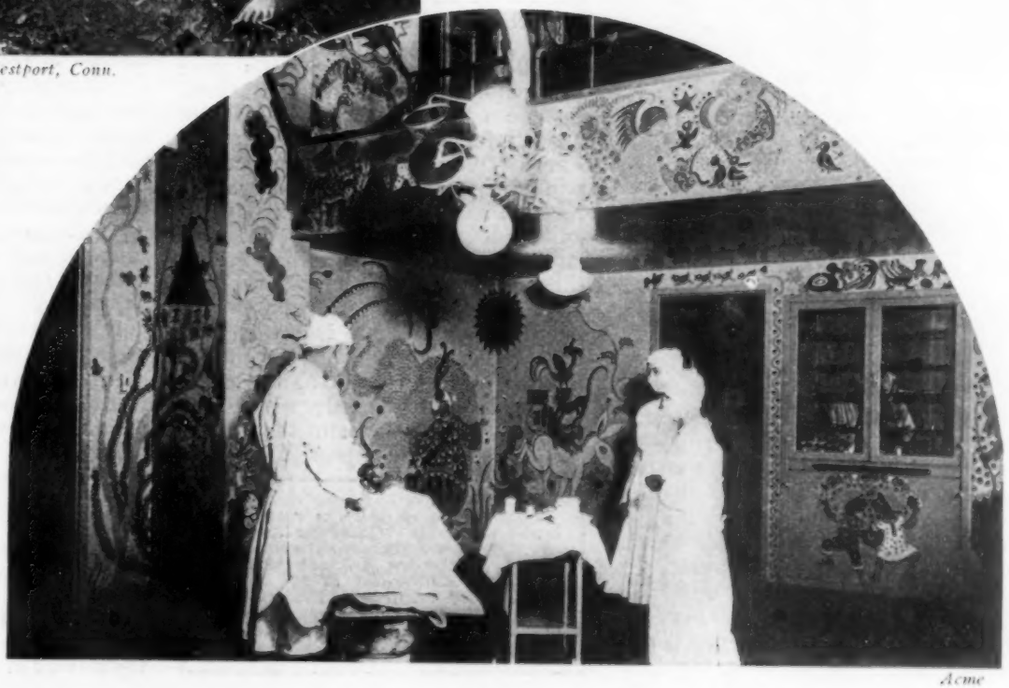
*Herbert Photos*

*Photo by Warren Boyer, Westport, Conn.*

## *SUNSHINE AND GROWTH*

May sunshine provides the beginning of long months of healthful outdoor life for plants and for children.

IN THIS OPERATING ROOM for children the walls and ceiling are covered with fantastic paintings to divert the patient's mind.



*Acme*

# QUESTIONS and ANSWERS

### Asthma

*To the Editor:*—I have attacks of asthma after colds in the head three or four times a year which last from three to ten days. Occasionally I have light attacks which last only a day or two and follow a dietary indiscretion. Would it be advisable for me to follow the vocation of high school teacher of chemistry, or would the fumes of the chemicals be liable to increase the frequency and severity of the attacks? I have not observed any ill effects in high school and elementary college laboratory courses in chemistry. My physician told me I could use a mixture of belladonna and stramonium leaves with a nitrate, but he did not tell me the proportion to use. What is the best proportion? I should like to inhale the minimum of carbon monoxide and have the least irritating mixture. A physician recommended ephedrine sulphate and I find this more efficacious than other remedies but have to use it some times in the maximum dose. What is the evidence in regard to the safety of this drug when it is used in these amounts over a period of several years? I understand that ephedrine sulphate is a comparatively new drug and that the evidence concerning its safety is not yet very complete. I can avoid the asthmatic attacks wholly by changing residence to a desert climate as I have fully demonstrated in my case, but I dislike to do so as it would mean sacrificing my college course. Can ephedrine sulphate affect the endocrine system detrimentally?

G. S., California.

*Answer.*—Asthma is not really a disease but a symptom of a number of different conditions. When it occurs at intervals as in this patient, especially when it follows a dietary indiscretion, it is probable that it may be due to the sensitization of the person to some particular kind of food material. It is unlikely that the fumes in a well ventilated laboratory would increase the frequency and severity of the attacks.

Concerning the preparation of belladonna and stramonium leaves with nitrate, it is true that the preparation might vary considerably without bad results. Perhaps it is well to use stramonium leaves alone. This remedy, however, simply gives temporary relief. One should, if possible, discover and remove the cause of the asthma.

Ephedrine is a comparatively new drug, but it seems quite safe for use under the direction of a physician. The patient should, however, let his physician settle the matter. It is entirely possible for him to find in a large city like Los Angeles a competent physician who has a wide experience and whose charges are within his means. He might make inquiry at one of the medical schools in that vicinity; for example, the Medical Department of the University of Southern California or of Loma Linda.

---

### Adenoids and Tonsils

*To the Editor:*—After the adenoids and tonsils have been removed in a child with a narrow upper jaw, will the child be able to breathe well through the nose? How can the narrowness of the upper jaw be corrected?

N. W. T., California.

*Answer.*—There are numerous instances in which after removal of the tonsils and adenoids the child is still unable to breathe well through the nose. This difficult nose breathing may be due to a number of things. Among the most important of these are sinus trouble with secretion filling the nose, so-called vasomotor rhinitis and year-round hay fever; in these instances the nose is obstructed by a waterlogged mucous membrane. Narrow nasal passages are accompanied by a high arched palate. Nasal obstruction due to a narrow and high arched upper jaw is difficult to treat. Its correction lies in the hands of a competent oral surgeon. By the use of metal braces on the teeth, the jaw is spread and the arch reduced. This takes months to accomplish. The results obtained are frequently very satisfactory and are worth the effort.

*If you have a question relating to health, write to "Questions and Answers," HYGEIA, enclosing a two-cent stamp. Questions are submitted to recognized authorities in the several branches of medicine. Diagnoses in individual cases are not attempted nor is treatment prescribed. Anonymous letters are ignored.*

### "Neu-Ovo"

*To the Editor:*—I have been taking some medicine called "Neu-Ovo" for arthritis in my feet. Although this stuff seems to be helping me, I am wondering whether it would have any injurious effects on me. I have been to several so-called good doctors and went through the University of Minnesota Clinic and also the Veterans' Hospital and about all they recommended was physical therapy treatments. The Veterans' Hospital gave me a thorough examination; that is, stomach pump, stomach fluoroscope, blood test and everything in general. My tonsils have been out for several years, and my teeth are in good condition. I have an enlarged hallus. I had an ingrown toe nail removed eight years ago, but I neglected it until the inflammation in the toe caused a hook to grow on either side of the bone, as shown by the x-rays. The toe never bothers me and a few years ago I thought of having the toe opened up and trimmed down to normal but two prominent physicians told me not to bother it. Could that toe have anything to do with my condition? It doesn't bother me even now.

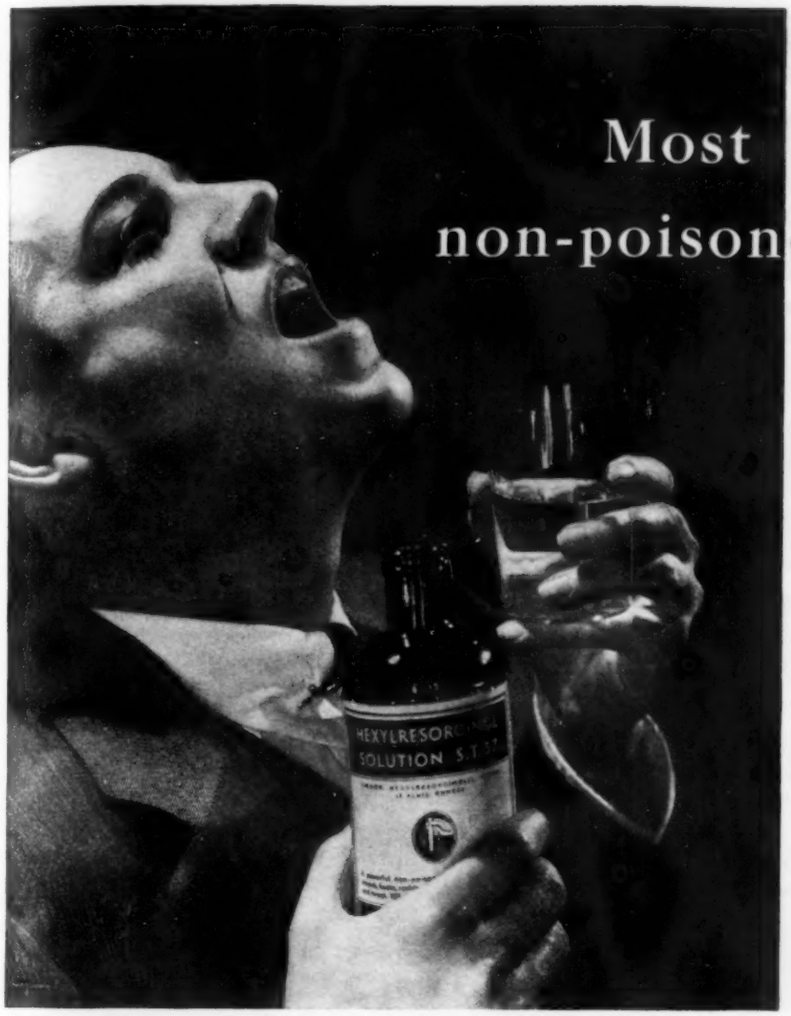
E. B., Minnesota.

*Answer.*—In response to this question, the Bureau of Chemistry of the American Medical Association supplies the following information about "Neu-Ovo":

" 'Neu-Ovo' has been declared by the federal authorities to be sold under false and fraudulent claims, and the federal chemists report that it is a dark brown, watery solution of extracts of plant drugs, including a laxative drug, a bitter drug, resin, saponin and caffeine, colored with caramel and preserved with sodium benzoate."

It is surely a waste of time and money to take such a nostrum.

Inflammation of the joints of the feet is common enough in elderly people as well as in those of younger age. Whether or not there is still any focus of infection in the foot, which may have to do with this trouble, is, of course, impossible for us to say in the absence of a personal examination. The operation on the toe nail may have left a condition that is the cause of the trouble. The inquirer should follow the advice of a competent physician.




# Most powerful non-poisonous antiseptic

**USED AND ENDORSED BY**

***The New York Infirmary for Women and Children—***

***Lying-in Hospital of Chicago—***

***Woman's Hospital of Baltimore***

WONDERFULLY GENTLE in its action, Hexylresorcinol Solution S. T. 37 cannot irritate even the delicate membranes of a new-born baby. The Woman's Hospital of Baltimore uses it "throughout the hospital for antiseptic purposes." The Chicago Lying-in Hospital says: "To prevent infection, we even sponge babies with Hexylresorcinol Solution S. T. 37."

For safe, intelligent antiseptic care you can depend on Hexylresorcinol Solution S. T. 37. It is made by a pharmaceutical house of recognized high standing with the medical profession. Buy a bottle today. 50¢ and $1.25 at all druggists' in the United States and Canada.

*Made by* SHARP & DOHME

**HEXYLRESORCINOL SOLUTION S.T.37**

GREAT HOSPITALS use Hexylresorcinol Solution S. T. 37 (1:1000) to safeguard the lives of those in their care—for gargling, for the dressing of wounds, and in operations. Powerful, yet safe, this antiseptic is just as perfectly adapted for daily use at home. Its active ingredient is 70 times more powerful than carbolic acid in germ-killing power, yet this Solution is pleasant to the taste and entirely safe, even if swallowed. Use it twice daily as a mouth wash and gargle, or whenever the throat is irritated. It retains its antiseptic strength even when diluted 3 times. Pour it immediately into open wounds.

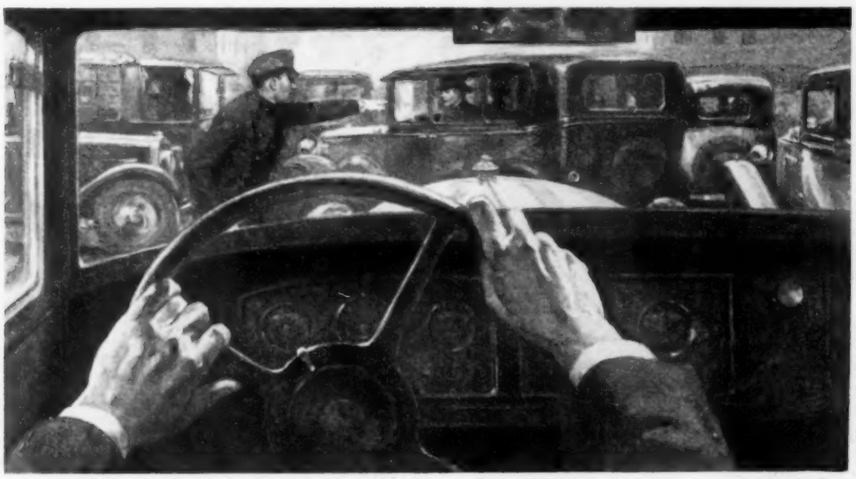
***Safe even for Children to use at home***

The New York Infirmary for Women and Children says: "When patients leave the hospital we suggest that they keep this new, safe, reassuring antiseptic in their home medicine cabinet." Teach your child to pour Hexylresorcinol Solution S. T. 37 into every scratch and cut, to prevent infection. Show him how to gargle with it. He will use it willingly because it does not smart or burn. It is actually soothing.

***What this Seal means . . .***

This seal should serve as an indication of the trustworthiness of Hexylresorcinol Solution S. T. 37. It means that the claims made on the label, in the package circular, and in the advertising are in accord with those submitted to and accepted by the Council on Pharmacy and Chemistry of the American Medical Association.

# Be a REAL Driver



©1932 M.L.I. CO.

## PREPARE FOR YOUR SUMMER DRIVING

*Check yourself on the following ten points of good motoring, enjoy your driving this summer and make it free from accidents to your family and others.*

| | Perfect Score | Your Score |
|---|---|---|
| 1. Do you keep your mind on your driving? | 10 | — |
| 2. Do you keep in line of traffic? | 10 | — |
| 3. Do you watch the movements of other cars and try to anticipate what they will do? | 10 | — |
| 4. Do you watch for pedestrians, particularly children? | 10 | — |
| 5. Do you slow down at schools, crossings and dangerous intersections? | 10 | — |
| 6. Do you signal to the car behind when you intend to change your course? | 10 | — |
| 7. Do you know the feeling of having your car under control? | 10 | — |
| 8. Do you keep in line when nearing top of hill or a sharp turn? | 10 | — |
| 9. Do you comply with traffic regulations, signals and signs? | 10 | — |
| 10. Do you have your car, brakes especially, inspected regularly? | 10 | — |
| | 100 | |

THE inexperienced and unskilful driver risks his life and endangers pedestrians and other motorists every time he ventures on the road.

Things happen so quickly in a car. At thirty miles an hour you travel forty-four feet in one second; four feet—often the margin between collision and safety—in one-eleventh of a second. Learn to figure distances and allow yourself ample road-room.

Could you forgive yourself if a moment's inattention resulted in a crash which you might have avoided?

Last year 33,000 people were killed and 1,000,000 injured in automobile accidents.

Relatively few of these accidents were the result of mechanical defects in the machines. The majority were caused by poor drivers or by good drivers who momentarily failed to control their cars.

A real driver does more than start, stop and guide his car. He controls its every action. He is at all times alert and anticipates possible blunders of pedestrians and drivers he meets or passes.

With 26,000,000 registered motor vehicles in the United States, all too many of which are driven by unfit or unskilful drivers, the need for real drivers is greater than ever before.

Learn the fine points of skilful driving. Not only are experts rarely injured, but they seldom suffer from nervous fatigue after a long, hard drive. Most of them enjoy their mastery over a powerful machine, perfectly obedient to intelligent direction.

***Send for free booklet which tells what a real driver does. In addition to valuable information, the booklet contains pages on which to record mileage, gasoline and oil consumption. Address Booklet Dept. 5-G-32.***

METROPOLITAN LIFE INSURANCE COMPANY

FREDERICK H. ECKER, PRESIDENT ~ ONE MADISON AVENUE, NEW YORK, N.Y.


### High Red Blood Cell Count

*To the Editor:*—Will you please give me some information as to what causes a high red blood cell count? Can the condition be brought back to normal?

H. G. R., Missouri.

*Answer.*—A high red blood cell count, polycythemia, may be either primary or secondary. As a secondary condition it occurs in persons who go to high altitudes, in congenital heart disease after a marked loss of blood from the body, and in emphysema of the lungs. In such cases it is obviously a protective function to make up for the lack of oxygen available to the patient. A few years ago Vaquez and Osler discovered independently a symptom complex characterized by cyanosis, polycythemia, and enlargement of the spleen.

When the polycythemia is secondary to the causes already mentioned, prompt recovery follows the correction of these conditions. The diminution in the number of corpuscles to the average normal occurs within a short time when one descends from a high elevation.

In the primary form (Osler's disease) the prognosis for the cure is bad, but one afflicted with the disease may remain in fairly good health, reasonably active, for several years. In the primary condition, death has usually occurred from heart failure, hemorrhage or recurring ascites.

---

### Diabetes in Children

*To the Editor:*—What chance has a 7 year old child of recovering from diabetes? Is there any authentic book on the care of a diabetic child in the home? Is there a cookbook on preparing food for persons with diabetes? When a diabetic child has fever, should she be put to bed? Is there anything else that can help her, except dieting or insulin and rest?

E. B. F., West Virginia.

*Answer.*—So far as is known, a child of 7 years cannot be cured of diabetes.

Books that may be helpful are: Primer for Diabetic Patients, by R. M. Wilder, published by W. B. Saunders Company; A Guide For Diabetics, by Campbell and Porter, published by Williams & Wilkins.

When a diabetic child has fever she should by all means be put to bed.

Provided the diet is right and the insulin dosage is right, nothing else can be done toward controlling diabetes.

---

The healthy know not of their health, but only the sick.—Carlyle.

### Eye Exercises

*To the Editor:*—I am puzzled about the status of eye exercises for the improvement of vision. There recently appeared in HYGEIA an article on "Eye Exercises and Vision," by Dr. Edward B. Heckel, which seems to deny utility in eye exercises for any type of defect in vision to which the human eye is subject. Am I right in this interpretation? If not, I should like to know the specific sorts of eye trouble that may be helped by exercises and the general type of exercise that is appropriate. I wish this information, not for self diagnosis or treatment, but to obtain the most widely accepted opinion of the medical profession on the subject. An oculist is now treating a member of my family by exercises for what he terms paralysis of convergence, in which he says the eyes do not act in unison. Since the age of 8, this patient, who is now 40, has worn glasses always fitted by recognized oculists, for the correction of astigmatism and nearsightedness. No other oculist ever mentioned any other defect except a small degree of crossed vision. G. M. W., California.

*Answer.*—Dr. Heckel in his article states well the opinions that are held generally by ophthalmologists in regard to this subject. The focusing muscle of the eye that brings about so-called accommodation is constantly at work and being exercised as we change the focus from distant to near objects, within reading distance. Consequently no additional exercises for improvement of visual acuity are necessary. As Dr. Heckel states, it is essential that refractive errors be properly corrected with suitable glasses so that there may be no excessive exercise on the part of the muscle of accommodation.

Possibly the correspondent has in mind exercises that are often advised by ophthalmologists for defects of mobility of the eyes, that is, imperfect action of one muscle or of a group of the extrinsic muscles whose purpose it is to move the eyes in various directions.

Defects in muscle balance often cause considerable discomfort which may be relieved by proper exercises, or by the use of prisms, or in certain cases by operative procedures. The doctor who is treating the patient mentioned is giving him exercises for what he terms a paralysis of convergence which concerns one or both of the extrinsic muscles of the eye that bring about convergence.

---

Coarse food well chewed saves teeth and preserves good health.—*American Dental Association.*

This little penny went to market—and bought this big dish of

Wheatena—the delicious, nourishing wheat cereal that starts you out right for a hard day's work.

Wheatena is the cereal that is packed full of those great strength-sustaining food elements of the finest winter wheat—and it costs less than 1 cent a dish to serve. In addition—it has an appetizing fragrance and delicious toasty flavor as appealing to grown-ups as to children. Enjoy a piping-hot dish at the start of a busy day—and see how much more strength and energy you'll have.

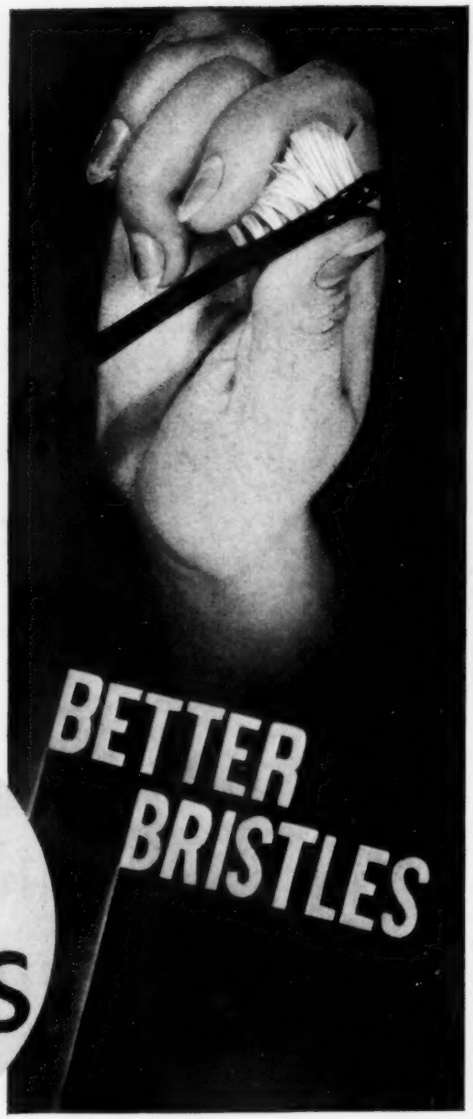
4 delicious servings FREE

We want you to taste the delicious, nut-like flavor of this wonderful wheat cereal—Wheatena. Please mail this coupon and we'll send you enough Wheatena for four generous servings.

*Name*.....

*Address*.....H-5-32

The Wheatena Corporation, Wheatenaville, Rahway, N. J.




Tek excels

Tek excels in the two things that everyone should demand of a tooth brush . . . *Bristles* and *Shape!* Tek's unrivaled value is in its BETTER BRISTLES and BETTER SHAPE. Its Bristles are laboratory-selected for purity, quality and long life! These Better Bristles are not subjected to artificial "doping." For there's no substitute for natural resiliency and positive purity. Tek comes to you sterilized, Cellophane-sealed for your protection and ready for use. Tek is the fastest growing tooth brush of our day. Play safe . . . use Tek yourself . . . Tek Jr. for the children.

***Better Shape***

Try this with Tek or any brush. This simple hand-test shows how Tek fits behind your front teeth . . . for the narrow curve made by your thumb and forefinger is the shape and size of your dental arch.

• Johnson & Johnson
NEW BRUNSWICK NEW JERSEY •

Tek

*the modern tooth brush*

### Eczema and Asthma in Young Child

*To the Editor:*—My little boy, 5 years old, developed at the age of 5 weeks an eczema that was not cleared up until he was 2. Soon after the eczema subsided, he developed asthma. Attacks occur when he has a so-called cold. He coughs two or three times, then begins to wheeze. This happens mostly when he goes to bed. Good hygiene, prescribed medicines and ultraviolet ray treatments have failed to check the asthma.

B. N. V., Ohio.

*Answer.*—Asthma so commonly develops in those who have had eczema in infancy that one may almost predict that it will follow at some time. Many of the eczemas of infancy may be shown to be due to specific articles of diet of the infant or of the mother and the same foods may be the cause of the asthma, which may be present in a mild form for weeks before being diagnosed. After one has been sensitized to one substance, sensitizations to other substances commonly occur. These asthmas, then, may be caused by foods and also by inhaled dusts such as animal dandruff, feather dusts, plant dusts and pollens.

Infections of the respiratory tract may be the cause of an asthma but are more commonly the added factor that precipitates the attack. Diagnosis requires a detailed study. Skin sensitization tests made with all used foods, dusts and other contacts often reveal the offending substance. If this is a food, it should be taken from the diet; if it is dust from household furnishings, the furnishings should be discarded; if it is from pollens, adequate treatment should be instituted. These measures may be all that are necessary.

In addition, if respiratory infections are found to be the chief or precipitating cause, the child should be put on a sensible regimen to build up resistance. Cod liver oil, a sensible, adequate diet, and simple hygienic management should be used. Operative procedures should be avoided unless there is a frankly infected focus. The respiratory mucous membranes are sensitive and the tendency has been to do too much in the way of local treatment. Ultraviolet ray treatments in moderation in winter may be a help. Change of residence to a different climate, while it is helpful to a few, is generally a disappointing and expensive experiment. Ephedrine hydrochloride or sulphate, accompanied by small doses of aspirin, while not curative, gives symptomatic relief. These should be prescribed by a physician.

**OLD DUTCH IS . . .**

# the only cleanser you need in your home

## *because it cleans more things and cleans quicker —costs less to use because it goes further*

Housecleaning time! Upstairs and down, and in the garage; for cleaning every type of surface—metal, paint, porcelain, wood—Old Dutch is proving daily that it's the only cleanser you need in your home.

Every day more and more women are adopting Old Dutch Cleanser exclusively because they find from experience that Old Dutch is safe; that it contains no scratchy grit, no caustic or acid to injure lovely things or roughen smooth hands. They've learned that Old Dutch is different; that its flaky, flat-shaped particles are natural cleansers that remove *all* the dirt, visible and invisible, working with equal ease on coarse or delicate surfaces.

Old Dutch cleans quicker; it's the easy way to the perfect healthful cleanliness that only Old Dutch can bring. The greatest selling cleanser in the world.

**Old Dutch Holders, in Color**

**Mail 10c and windmill panel from an Old Dutch label for each holder**

OLD DUTCH CLEANSER, Dept. M-161, 111 West Monroe Street, Chicago, Illinois

Please find enclosed.....cents and.....labels for which send me.....Old Dutch holders.

Colors: IVORY ☐ GREEN ☐ BLUE ☐

*Name* _____

*Street* _____ *City* _____ *State* _____

# FRESHEN UP *that* WINTER-WEARY SKIN!

**Skin starved from indoor steam heat. Skin exposed to winter winds. Skin weary with the shocks of heat then chill. All this spring, use Nivea* Creme, and put back the freshness that winter took out.**

**Nivea is the only creme containing Eucerite*, which makes it go deep and work deep to get out the dryness of winter months. Buy a tube from your druggist . . . use it for general skin care, for night creme, for cleansing and powder base. If you want to try it first—and see how effectively it works—send this coupon for a free trial tube.**

**Trade Marks Reg. U. S. Pat. Off.*

P. Beiersdorf & Company, Inc. H5
200 Hudson Street, New York, N. Y.

Please send me a trial tube of Nivea Creme without charge.

Name.....

Street.....

City.....


## *FOODS—THEIR SELECTION AND PREPARATION*

*(Continued from page 411)*

Fish: firm skin; good color; firmly set scales; clear eyes; fresh smell; rigid body.

Apples: according to use. Unless cost is relatively higher, it is best to buy large apples for sauce, pies and salads and medium ones for baking and eating. Small apples are seldom bargains, because of the waste of skin and core and, furthermore, the flavor is seldom up to high standard.

Apricots: ripe, unbruised.

Avocados: ripe but not cut or bruised.

Bananas: deep yellow with brown flecks; unbroken skin.

Citrus fruits: heavy for size and thin skinned.

Melons: heavy for size; color underneath, yellow or golden; pleasing aroma; blossom end yielding noticeably to pressure. Watermelons change from a deep green to a yellowish cast when ripe, with the under side pale yellow instead of white. Thumping with the fingers sometimes may show a different note—metallic for green melons and muffled for ripe ones.

Peaches: tree ripened, if possible.

Pears: firm; not picked too green.

Pineapples: orange yellow, with easily pulled spines.

Dried fruits: selection depends on proposed use. For prune pulp and prune pies, the smallest sizes will give the greatest yield for the money expended. For stewing, the middle sizes are best. For dessert, fruit and confections the largest sizes are very desirable.

Meat: firm; good color, with creamy fat evenly distributed and with practically no odor. The specific cut to select will be determined by the result desired.

Nuts: fresh; good flavor. Due consideration should be given to the ultimate use, whether to be cut up for cakes, sauces and frostings, for which broken kernels at a lower price will be as satisfactory as the unbroken kernels, or whether to be used for garnishes or as a nut service, in which case unbroken kernels are preferable.

Poultry: plump flesh; clear unbroken skin.

Eggs: fresh eggs will sink in water. The best guide, however, is to buy from a reputable dealer who knows his goods.

Asparagus: firm; crisp.

Beans, string or wax: "snap" evenly and quickly.

Beets: fresh tops; firm body.

Brussels sprouts: crisp; bright green.

Cabbage: firm; crisp.

Carrots: firm; fresh; unwithered.

Cauliflower: white; compact.

Celery: crisp, well balanced stalks with no spoiled leaves.

Egg plants: plump; good color; from 6 to 9 inches in diameter.

Lettuce: crisp; firm.

Mushrooms: firm; fresh; clean.

Potatoes: medium sized for baking; large for mashing and for salads.


## MY WIFE

**I am glad you are giving the children Kellogg's Tasteless instead of old-fashioned castor oil; it doesn't upset their stomachs. It is the only castor oil in America in refinery-*sealed* bottles—always fresh, pure, full-strength, free from castor taste and odor. We should never, under any condition, have any other castor oil in the house.**

**YOUR HUSBAND.**

P.S. Insist on the *sealed* bottle.

Walter Janvier, Inc., New York, N. Y.

KELLOGG'S TASTELESS

## MAIDEN FORM'S *New*

## "MATERNITY BRASSIERE"

GIVES PERFECT SUPPORT

It is **scientifically** designed to give the prospective mother exactly the **correct support** obstetricians require for their patients during the pre-natal period. **Four elastic gussets** (one placed low at each side of the front —one under each arm) together with **side lacings** allow fully for the necessary expansion. At the same time, the Maiden Form Maternity Brassiere is cleverly cut to **preserve the natural contours of the figure,** supporting the breasts perfectly and assuring a trim, neat appearance. No. 7006, of dainty flesh colored mesh, is priced $1.50. If your dealer cannot supply, write: **Maiden Form Brassiere Co., Inc., 245 Fifth Avenue, N. Y. C.**

Reg. U. S. Pat. Off.

*The Maiden Form* BRASSIERE

GIRDLES · GARTER BELTS

## *Birthmarks—*

**SCARS, VEINS, Etc.**

My own facial birthmark caused me to discover at last the one perfect way to hide birthmarks, scars, blotches, veins, etc.

My "Covermark" preparation is endorsed by Good Housekeeping Institute and leading skin specialists. Used by hundreds of grateful women and men who longed to solve this cruel problem. A new discovery. Absolutely safe. It will win *your* gratitude. I am no longer handicapped. No need for *you* to be.

**Discovered and personally manufactured by**

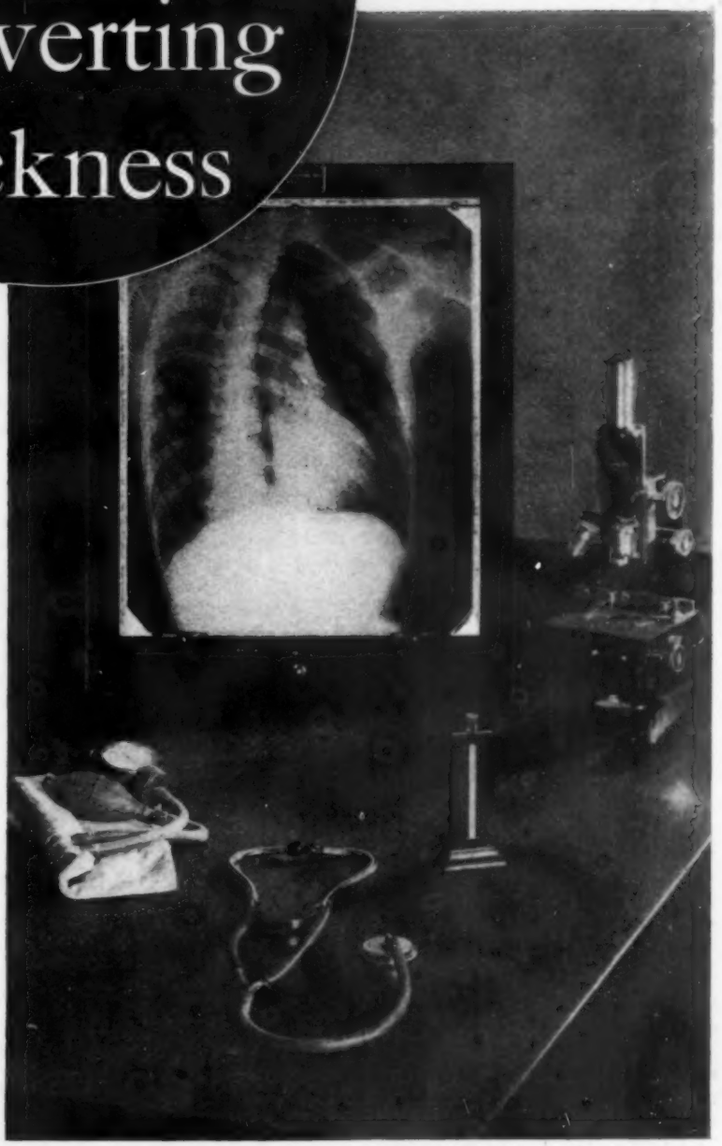
**LYDIA O'LEARY**

**11 West 42nd St., New York, N. Y.**

Lydia O'Leary, Ltd., Toronto, Canada

**Write to me for free information.**

# Each plays a part in averting Sickness



TODAY, sickness can be averted. Physicians have at their command diagnostic aids that enable them to discover the first indications of encroaching disorders. Thus, disease can be banished, sickness averted, and life prolonged.

The microscope permits the study of tissue sections; the blood colorimeter, the blood quality; the stethoscope, the heart and lungs; the sphygmomanometer, the blood pressure. And most important of all, there is the radiograph (x-ray picture).

X-rays are the diagnostic aid that is the basis for personal preventive medicine; they provide visual evidence of internal conditions that can be studied in no other way. With them it is possible to detect disorders before they can be discovered in any other way, at the time when they can be arrested.

You should avail yourself of the benefits of personal preventive medicine. Go to your physician annually for a complete health audit which includes x-ray examination. Then you will avert sickness—keep well.

HAVE AN ANNUAL HEALTH AND X-RAY EXAMINATION

*An interesting booklet, "X-rays and Health," which tells of the part x-rays play in keeping you well, will be sent to you free. Just fill out the coupon and send it in.*

EASTMAN KODAK COMPANY, *Medical Division,*
351 State Street, Rochester, N. Y.

Gentlemen: I should like to receive a copy of your free booklet, "X-rays and Health."

Name _____

Number and Street _____

City and State _____

## TUBERCULOSIS FINDS FOE IN SANITARY PRECAUTIONS

Do not feel a false sense of security because no one in your family has ever had tuberculosis. There are those who still believe that tuberculosis is hereditary. Nothing could be more erroneous. It is an infectious disease caused by the tubercle bacillus, a germ discovered and fully described fifty years ago.

Prevention, then, depends on control of the disease. The reason why tuberculosis was thought to be hereditary was because there had been nothing to prove it was not and, besides, had not whole families been wiped out by the scourge? The reason for this is that tuberculosis is highly contagious and great care must be exercised in those families in which a member has the disease.

*Health News,* the official bulletin of the Los Angeles County Tuberculosis and Health Association, illustrates how an elderly person who had tuberculosis in a mild form had given it to four children living in the same home, all of whom died. Another illustration showed that three children were kept alive and well because an older person of the family, a victim of tuberculosis, was willing to observe sanitary precautions.

---

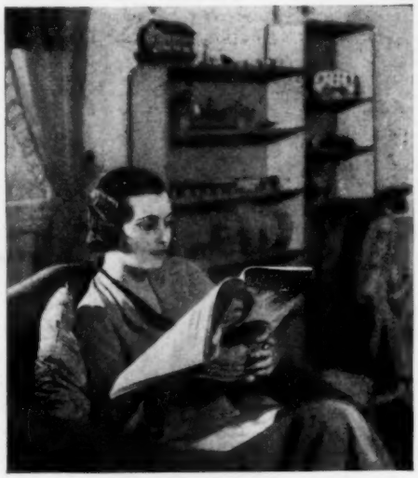
## HEALTHFUL LIVING BEST GUARD AGAINST COLDS

Colds often prepare the way for serious disease, such as pneumonia and tuberculosis. A few of the following precautions may give you and your family a better chance of getting through the spring months without colds. The best guard against colds is good general health. Specifically, overfatigue, a lack of protective foods, and overheating must be guarded against.

Those foods that will be of greatest aid include: a quart of milk a day, in any form (custards, ice cream, creamed soups, creamed vegetables and cheese are variations), green vegetables at least twice a day, and one or two fresh salads and fruits, especially citrus fruits. Cod liver oil is especially helpful.

Keep the room temperature between 68 and 70 F. and provide good ventilation. Open windows from top and bottom. Dr. Shirley Wynne, health commissioner of New York, offers these ideas in a recent bulletin from the health department of that city.


## A MOTHER MUST HAVE AMPLE TIME TO REST



No MOTHER begrudges the time and work that her baby demands. But she *must* have frequent and ample rest periods. When she is faced with the cooking of vegetables to supplement her baby's milk, useless hours are spent over a hot stove. And then, results are not satisfactory.

By substituting CERTIFOODS for home-cooked vegetables the hard work is eliminated and the lost hours are regained—the time can be used for rest. Moreover, CERTIFOODS provide a *guaranteed* vitamin potency far in excess of the home-cooked product. This is due to the strict laboratory supervision and the exclusive process (patent pending) by which oxygen (the agent which is so active in destroying Vitamin C) is excluded. Nothing could be simpler or more economical than CERTIFOODS. Simply warm and feed. There is no waste—it is all food.

To be sure of getting the genuine, look for the *guarantee* which appears on the label of every enamel-lined container of CERTIFOODS. It means that CERTIFOODS are the only sieved vegetables sold under a guarantee of three different vitamins—A, B and C. Leading druggists sell CERTIFOODS.

Mothers will be interested and helped by our new booklet, "What Kind of Baby Is Yours?" Send for *your* copy today.

CERTIFOODS, INC., *Subsidiary of* The Maltine Co., 30 Vesey Street, New York, N. Y.

**Certifoods**

*Sieved Vegetables*

CARROTS TOMATOES SPINACH
GREEN BEANS GREEN PEAS VEGETABLE PUREE

CERTIFOODS *are accepted by the American Medical Association. They are also approved by the Good Housekeeping Bureau of Foods, Sanitation and Health.*


## TEACHING MAY DEVELOP GOOD MENTAL HEALTH

The mental health of the teacher is of utmost importance both to her and to those she serves. Teaching may produce either a good mental condition or a poor one. *Understanding the Child,* a magazine for teachers, outlines a few valuable ideas for the teacher who would like to develop wholesome interests.

Primarily the teacher has opportunity for a task that is worth while for its own sake. Again, a permanent interest in the child's personality and in human personality in general is possible in teaching. The study of children is one of the best ways of studying oneself. The worst of these faults are usually survivals of childish emotions; jealousy, envy and exaggerated attention to trivial things, though normal in children, are unfortunate, and injurious to the mental health of adults.

Physical health is closely related to mental health, and the latter is definitely an aid to the former. Mental hygiene teaches also that the teacher should give attention to the present situation without worry about the past or the future. Teachers often forget this elementary rule. They should remember that teaching gives a rich opportunity for first-hand observation.

---

## INEXPENSIVE RECREATION SOOTHES TIRED NERVES

The bulletin of the Milwaukee Health Department suggests some of the more inexpensive amusements and recreations that may, if properly used, give great relief to the tired nerves of the working man and woman. They are enumerated as follows:

1. Automobiling during nice weather, on good roads with a sober and safe driver.
2. Playing golf on one of the many public golf courses.
3. Pitching horseshoes at home o. on the public courts.
4. Ice skating.
5. Attending outdoor sports, such as football, baseball, hockey, skiing and others.
6. Attending concerts, plays, movies and other inexpensive entertainment.
7. Belonging to a card, dancing or luncheon club offering congenial companionship and a pleasant pastime.
8. Being outdoors for a half hour daily. One recreation that all physically well individuals can engage in is walking.

## HEALTH OF ARMY SERVES AS BAROMETER OF PROGRESS

The health of the standing army during peace time should be an indication, when compared with similar conditions of former years, of the progress that has taken place in the treatment of common disorders and injuries and of the possibilities of preventive medicine.

Such statistics show that there is now only one-fourth as much sickness in the U. S. Army as there was 100 years ago, and only one-half as much as during the period just prior to the Spanish-American War.

An editorial in *The Journal of the American Medical Association* says: "This is an interesting record of progress for which the development of medicine is largely responsible. The Surgeon General points out that the most notable advance has been in the control of communicable diseases, and especially of those transmitted through the gastro-intestinal tract; namely, typhoid, diarrhea and dysentery."

## 24 PIECE LAYETTE MADE FOR COST OF $1.50

A twenty-four piece layette made from flour and sugar sacks at a cost of $1.50 shows both ingenuity and economy. Such practicality was demonstrated by the Tennessee home hygiene class of Hancock County, Tenn. Katherine Malone, R.N., organized home hygiene classes throughout the state and instructed her class in the making of clothing inexpensively for the baby. The flour and sugar sacks were washed and bleached. The pupils obtained the patterns and made the layette. Including the floss, tape and thread and one dollar for two wool shirts, the whole outfit amounted to only $1.50, the *Red Cross Courier* explains.

## FAMILY FOOD GUIDE

The United States Department of Agriculture recently issued a family food guide. It includes the following items: (1) every meal: milk for children, bread for all; (2) every day: cereal in porridge or pudding; potatoes; tomatoes or oranges for children; a green or yellow vegetable; a fruit or an additional vegetable, and milk for all; (3) from two to four times a week: tomatoes for all; dried beans and peas or peanuts; eggs; lean meat, fish or poultry, or cheese.

A surface of 480 square feet would be covered by spreading out flat the cells of the lungs.

"Sure, I use Colgate's!
*I like it...that's why!"*

SHE'S a good scout—*my* mother is! She's goin' to be tickled pink when she sees these two beauts—even if I did tear my pants a little comin' through Bailey's fence. Ma believes in lettin' a feller do things the way he *likes* to do 'em. That's why she buys me Colgate's to brush my teeth with. I *like* it—that's why. Boy—does it taste keen! I guess mother knows what she's doin'. Doctor Ellis told her there ain't *any* toothpaste can beat Colgate's for keeping teeth clean—says more people use it than any other kind. An' Ma says 'cause Colgate's only costs a quarter—mebbe she's savin' to buy me a new fish pole. Anyhow—she don't have to bother about me brushin' my teeth reg'lar—so I guess *she's* satisfied, too.

ACCEPTED AMERICAN DENTAL ASSOCIATION

This seal signifies that the composition of the product has been submitted to the Council on Dental Therapeutics of the American Dental Association—and that the claims have been found acceptable to the council.

# MOTHER
## *protect your baby*
## from germs of infection

# Vanta *Sterilized*
## GARMENTS FOR BABIES

FOR your sake, Mother, and Baby's, clothe the wee body in garments which come to you free from germs—HOSPITAL-SAFE from the danger of skin infection which doctors, nurses, hospitals fight relentlessly. How wonderful to KNOW that when you break open the dainty package, the soft Vanta garment is just as pure as though the doctor or nurse handed it to you right from the hospital sterilizing room. No dread that the terrible germs which cause infection can attack the little body, for germs enter the slightest of skin abrasions—even those caused by chafing.

Washing or wrapping garments in packages won't kill germs. Only heat kills them. So, to keep your baby safe, Vanta Garments are vacuum-steam sterilized for 30 minutes in 250° F. of heat, in exactly the same machine hospitals use. Put them right on without washing.

And yet these Vanta Sterilized Garments, HOSPITAL-SAFE from germs, cost you no more. Ask your store for Vanta Sterilized Shirts, Vests, Binders, Knities, Diapers, Sheets, Pillow Cases.

***Then Use Vanta SELF♥HELP Garments***
***Sizes 2 to 12 Years***

VANTA-LACO Sterilized Powder, Sterilized Olive Oil and Pure Imported Olive Oil Castile Soap are best for babies—all of highest Vanta Quality. Insist upon having Vanta—recognize it by the Vanta Baby. If you can't get it, send name of store to EARNSHAW KNITTING CO., Dept. 1003, Newton, Mass.

## *FREE TO YOU*

**A copy of Vanta's book, "BABY'S OUTFIT," on care and dressing of Babies; revised edition. A full 64 pages of most helpful information, beautifully illustrated.**

Earnshaw Sales Co., Inc.
Dept. 1005, Newton, Mass.

Without charge, now or later, send your book "Baby's Outfit," on care and dressing of babies, and illustrated catalog—all in plain envelope.

Name.....

Address.....

City.....State.....


## CHILD'S FEET DESERVE MOTHER'S CARE

Attention given to the feet of a child will be its own reward in later life. In caring for the feet properly, attention must be directed to all the various structures of the foot, including bones, joints, muscles, tendons, nerves, blood vessels, skin and nails. The function of the foot is to supply an organ of locomotion that is resilient or springy, in order to avoid jars to the brain, the spinal cord, and the abdominal and pelvic organs. Anything that interferes with that function may affect the entire body.

A few simple rules that the mother can apply to her child's feet follow:

1. Gymnasium shoes should be worn for gymnasium use only. Ballet slippers should not be worn except while dancing, which is an excellent exercise for foot training, although much of it is hard on the arches at first. Dancing may be started at the age of 4 or 5, but toe dancing should not be begun before the age of 8 or 10 years.

2. Swimming is good exercise. Roller skating and ice skating are good if proper precautions are taken in the beginning. Jumping the rope is good exercise but the child should not jump flat-footedly.

3. Ringworm of the feet is common. The disease is caused by a parasite that is usually picked up in places where large numbers of persons walk barefooted. In drying the feet at any time, wipe them as dry as the face. Then powder them.

4. Watch the child's weight. Obesity in children causes both knock knees and flatfoot.

5. By the use of proper clothing, prevent the cutting off of blood circulation in a child's limbs. Be certain that his stockings and shoes are not too short.

6. Never let a child who has been ill in bed step into low-heeled bedroom slippers.

7. Massage of the feet and legs should be given twice daily with olive oil or cocoa butter. The movement should be deep and rotatory.

Dr. Philip Lewin, associate professor of orthopedic surgery at Northwestern University Medical School, offered these suggestions to mothers in a recent radio address.

**IMPORTANT to Mothers and Babies. FREE Trial Offer**

DAVOL

**See the Patented Sani-Tab**

For many years the Anti-Colic 3-hole nipple has been the choice of physicians, nurses and millions of mothers. Now the new Anti-Colic with Sani-Tab marks another great improvement in the hygiene of infant feeding. Much more easily applied to bottle, too. Let us send one absolutely free, for trial. Write to **Davol Rubber Company, Dept. H5, Providence, R. I.**

# Schools and Camps

### *Resorts*

**Big Timber Lodge for Adults**
**ON LAKE MEMPHREMAGOG**

Relaxation and recreation in an informal atmosphere. 450 acres of natural playground. Main lodge and cottages with open fireplaces. Tennis, badminton, fishing and all water sports. For further information write to

**MERLIN LIMITED**
Georgeville Quebec

### *Camps*

**CAMP EAGLE POINT**
**Established 1905**

Located in the beautiful White Mts. on Stinson Lake, Rumney, N. H. All land and water sports. Riding included in tuition fee. Finest sanitary conditons. Excellent spring water. Jewish Girls. **Mr. and Mrs. A. L. Richman, *Directors.*** 72 Gardner St., Allston, Mass. Camp Stinson for Boys 2½ miles distant.

**CAMP STINSON *for Boys***

In the White Mts. on Stinson Lake, Rumney, N. H. Excellent sandy beach. Finest sanitary conditions. Excellent spring water. Land and water sports. Riding included in tuition Fee. Staff of trained counselors. Jewish Boys. **Mr. and Mrs. A. L. Richman, *Directors.*** 72 Gardner Street, Allston, Mass. Camp Eagle Point for Girls 2½ miles distant.

### *Schools for Backward Children*

**Beverly Farm** (INC.) ***A Home and School for Nervous and Backward Children and Adults***

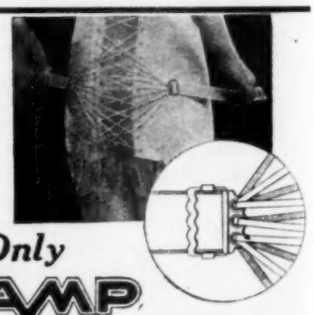
220 acre farm. 7 bldgs. New school gymnasium. 35th year. Industrial and school training given. Dept. for birth injury cases. GROVES BLAKE SMITH, M.D., Supt. **Godfrey, Ill.**

**<> TROWBRIDGE TRAINING SCHOOL <>**

Home school for nervous, backward children. ***Best in the West.*** Beautiful buildings. Spacious grounds. Experienced teachers. Individual supervision. Resident physician. Enrolment limited. Endorsed by physicians, educators. Booklet. E. Haydn Trowbridge, M.D., 1810 Bryant Bldg., Kansas City, Mo.

### *Schools of Nursing*

**ENGLEWOOD HOSPITAL** Be a Nurse. Three year course. State accredited. Beautiful nurses' home. Full maintenance and monthly salary. Four year High School course required. For further information, write to Englewood Hospital, 6001 South Green Street, Chicago, Illinois.



***Only***
**CAMP**
***Has This Feature***

The Camp Patented Adjustment is an exclusive, non-competitive feature. The continuous lace running through the adjustment straps (and not affixed to them), as well as through the garment itself, automatically balances the adjustment. Camp has a health garment to meet most physical needs.

**S. H. CAMP AND COMPANY**
Manufacturers: Jackson, Mich.
Chicago 1056 Merchandise Mart
New York 330 Fifth Ave.

## CAUTION SIGNS IN HOMES WOULD PREVENT ACCIDENTS

"Caution—Rip in Door Mat."

"Warning—Steep Stairway—Children Go into Second."

"Super-Service—Skinned Knees Washed and Greased."

How would you like to have signs like these greet you in your home tonight?

The profusion of highway signs and warnings has inspired Mrs. Willis M. Graham, a leader in the activities of the Illinois Federation of Women's Clubs, to suggest a similar system of dramatized warnings for home consumption.

"I am told by the National Safety Council that our homes are almost as dangerous as our streets and more dangerous than our industrial plants," she said in a recent radio address. "I have learned that insurance companies do not consider housewives particularly good risks. Why? Because safety education, system and law have not yet entered the home.

"There are laws in my state placing responsibility for accidents, but there is no law that comes in and tells me what I can do in my own home—alas!

"There's no law which says 'you may not use your wonderful open fireplace until you get a screen.'

"No law can compel me to use a step-ladder instead of a chair. Many a sprained muscle and broken bone can testify to this.

"The accident rate in bathrooms is exceptionally high. The idea of 'singing in the bathtub' is not so bad after all. At least your family knows that you are still alive.

"It isn't that we don't know all these dangers, but we need discipline that will make us pause before a chore and take account of its hazards.

"We know better than to gamble with the lives and limbs of our beloved ones, but it is a singular thing that our knowledge is always far in advance of our use of it, and in many homes that interim has exacted bitter payment."

---

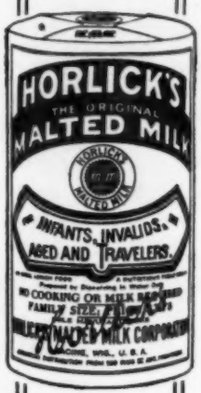
All wage-earning women between the ages of 16 and 50 in Spain, except those in domestic service, must carry maternity insurance according to a compulsory act to this effect passed this year. Every woman employee pays $1.50 a year into a fund. The employer pays the same amount for every female employee. An insured woman has the right to stay away from work for six weeks before her confinement, a benefit being paid to her during this period.

# For Sleeplessness

**A hot drink before retiring is an aid in promoting restful sleep. Horlick's Malted Milk, hot, has special advantages for this purpose in that it is pleasant in flavor, easy to take, soothing and nourishing.**

When sleeplessness is the result of unwise eating habits, a light evening meal, followed by a cupful of Horlick's, hot, at bedtime, frequently overcomes restlessness.

It is the digestibility of "Horlick's" and its highly nourishing, soothing qualities that make it especially useful in promoting sleep. "Horlick's" contains valuable constituents of whole cow's milk and the nutritive extracts of the finest selected wheat and malted barley, prepared in such a way that they are assimilated with ease.



ACCEPTED AMERICAN MEDICAL ASSN.

*Tune in on*

**Adventures in Health**

**Columbia Network**

WEDNESDAY AND FRIDAY

10:15 P. M. Eastern Time—9:15 P. M. Central Time

**THE ORIGINAL** **MALTED MILK**


# HORLICK'S

*Horlick's Malted Milk Corp., Racine, Wis.*

# "Debunking the Vitamins"

"The befuddled consumer will do well to heed the admonition of a certain authority of the Bureau of Chemistry of the U. S. Bureau of Agriculture, to get his vitamins from the garden and orchard rather than the drug counter."

So writes Dr. E. F. Kohman in the June HYGEIA. Many have become too vitamin conscious. And the over-zealous have fallen into fallacies. If you read this article which explains the A.B.C.'s of the vitamin subject and then use your own common sense in eating, you can't go far wrong! You'll have so many vitamins you probably won't need any "spring tonic"!

## "Bladder Trouble and So-Called Bladder Trouble"

In this helpful article in the June HYGEIA, Dr. Channing S. Swan explains some fundamentals regarding the various disturbances of the bladder and their causes. The layman cannot tell what is wrong without an examination, and should consult his physician at the first sign of any of these warnings. The symptoms may show that there is some serious medical or surgical disease that may prove fatal if neglected. But it is reassuring to know that medical science has advanced to such a degree that a correct diagnosis of bladder and kidney disorders can be made in well over 90 per cent of the cases.

## "Vacations for Children"

Vacations for children should bring them health and happiness without over-exertion, should give them a background of experience, and should enlarge their horizon. Where and how this may be accomplished to the best advantage is entertainingly told by Dr. H. G. Bull in the June HYGEIA. Now that school days are drawing to a close, this article may help solve the problem of vacations for the children in your family.

## "Vaccination and the Anti-Vaccinationists"

Here is an interesting article by Dr. W. W. Bauer, of the Bureau of Health and Public Instruction of the American Medical Association. It deals with a circular published by the Citizens' Medical Reference Bureau, which distorts and misrepresents statements regarding vaccination made in medical publications. Dr. Bauer's exposé of the methods used by such organizations in their attacks upon scientific medicine will prove enlightening to readers of the June HYGEIA.

## Also in the June Issue of HYGEIA

Miss E. M. Geraghty will discuss the selection and preparation of "Beverages," Dr. Stuart Pritchard will explain the work of "The W. K. Kellogg Foundation," and Katherine Applegate Keeler will tell how "The Criminal Puts It in Writing"—part of the series on "How Science Solves Crime." You'll find plenty of interesting and helpful reading in the next HYGEIA! If you are not already a subscriber, try the special offer given below.

**AMERICAN MEDICAL ASSOCIATION** H-5-32
**535 North Dearborn Street, Chicago, Ill.**

Enclosed is one dollar for an introductory six months' subscription to HYGEIA, the Health Magazine.

Name.....

Address.....

## Introductory 6 Months of HYGEIA $1

**Regular Subscription $3.00 a Year**

## KITE-FLYING CALLS FORTH SAFETY WARNING

The kite-flying season is officially here and if this year's record runs true to form, youthful America will pay with the lives of several children for its fun, according to the National Safety Council.

The age-old sport, relatively harmless in a former day, is now beset with two prominent hazards, and a season rarely passes that does not exact its toll in dead and injured. The hazards are high voltage electricity and traffic.

A survey of numerous child accidents shows that there are several conditions to be considered if these accidents are to be stopped.

The elimination of kite-flying in the vicinity of high voltage lines is imperative. Children often climb poles to retrieve their kites when they catch in the wires and are literally burned to a crisp. The use of fine wire or cord with a wire woven into it should be abolished. So should kites with metal or wire frames. Each of these factors has in the past been the cause of serious injury or death.

The Council also warns that it is dangerous to fly kites in a thunder storm. The wet cord or wire may act as a conductor for the electricity either in the atmosphere or in high tension lines which the string may touch.

Kite-flying adds one more hazard to the ever present dangers of traffic. Children, in their attempts to elevate their kites, often run directly into the path of speeding automobiles.

The pastime should be restricted to vacant lots—away from traffic and away from wires.

The problem is, of course, primarily one of an educational nature. Parents and teachers must explain the hazards to the youngsters and, if necessary, use disciplinary measures to see that their injunctions are carried out.

---

## WATCH DENTAL HYGIENE OF CHILDREN

Not only should the mother send her child to the dentist twice a year, but she should watch the teeth for decay. Children's teeth decay rapidly because of frequent errors in diet and exposure to infection. Adults, too, not only should see a dentist often but should watch their own and their children's dental hygiene in the home.

---

From a strictly health point of view, every one must mind his neighbor's business as well as his own.—Dr. D. Lechmere Anderson.

"Call me Sissy because I wash my hands? I'LL SHOW YOU!"

# Now he fights *for* Clean Hands

## . . . *not against them!*

LET that old smarty laugh! He can't laugh our Bobby out of the Clean Hands habit! Thanks to the Lifebuoy Wash-up Chart, it's there to *stick!*

Simply, clearly, in pictures and words, the Lifebuoy Wash-up Chart tells how to wash, when to wash—and why. It shows how hands may pick up germs from common, everyday objects we *have* to touch. And its clever device of keeping score makes hand-washing seem like an exciting new game.

The Life Extension Institute warns that 27 diseases may be spread by germs our hands pick up. Washing hands often—*always* before meals—in Lifebuoy's rich creamy lather, removes these germs before they can endanger health.

***The finest of "beauty soaps"***

Its pleasant, hygienic scent, that vanishes as you rinse, tells you Lifebuoy *purifies.* That's why it's such a wonderful complexion soap—why it protects against embarrassing body odor. • • •

FREE to mothers: A Wash-up Chart and trial size cake of Lifebuoy for each of your children. Simply fill out and mail coupon below. Solve *your* Clean Hands problem this simple, smiling way.

# LIFEBUOY

## HEALTH SOAP

*for face, hands, bath*

free

LEVER BROTHERS CO., Dept. 375, Cambridge, Mass.

Please send me, free, Lifebuoy trial cakes and "Wash-up" Charts for my.....children.

*Name*.....

*Address*.....

*City*..... *State*.....

## HOW YOU FEED YOUR FAMILY

***may determine the amount of your doctor's bill!***

No, we don't mean "an apple a day" . . . We mean a real appreciation of food values; proper balancing of foods; intelligent selection based on practical and scientific knowledge of seasonal foods with a view to both economy and nutritional needs.

A BOOK FOR THE MODERN HOME MAKER AND PARENT

**FOODS** IN HEALTH AND DISEASE

By LULU G. GRAVES, Consultant in Nutrition

**$3.50**

THE MACMILLAN COMPANY, 60 FIFTH AVE., NEW YORK



## Spraying is Easy for Children

If gargling is difficult for most grown people—as it is—think how much harder it is for children. And because it is difficult, it is often ineffective. When your doctor prescribes a medicated solution for application to the nose or throat, ask his opinion of spraying. A DeVilbiss Atomizer will apply the medicament, not only very gently but very thoroughly to all inflamed tissues. The medicated vapor reaches the spot without gagging or choking. You can get a DeVilbiss Atomizer at any drug store.

**DeVilbiss**

★ ★ ★

The DeVilbiss Company, Toledo, Ohio, headquarters for atomizers and vaporizers for professional and home use.

Accepted by the Council on Physical Therapy of the American Medical Association.



## NEON GLOW LAMP . . . for Night Emergencies

A 2-watt Neon Glow Lamp means safety—time saved. Left lighted every night—current costs only a few cents a month. Lasts thousands of hours. Buy it at your local electrical dealer's or write us for folder. General Electric Vapor Lamp Co., 845 Adams St., Hoboken, New Jersey.



Mention HYGEIA when writing to Advertisers



## HEALTH POSTERS

### *From Far and Near*

You probably enjoyed the 4-color process reproductions of child welfare posters that appeared in the December HYGEIA; and so you will be pleased to learn that these striking color pages are now available in reprint form, enclosed in a decorative folder.

These colored posters represent some of the best foreign health poster work, the plates for a number of them having been imported directly from Europe for use in HYGEIA. They deal with child welfare and prenatal care in

| | |
|---|---|
| France | Russia |
| Germany | India |
| China | Japan |
| Latvia | Lithuania |

The folder holds eight individual sheets, each containing from two to nine miniature posters in their original colors. In this form the posters may be displayed in groups, or cut out and mounted separately on artcraft paper.

***For Home or School***

Children will delight in cutting out and arranging these pages for scrapbooks. And at the same time they will be absorbing lessons on the importance of fresh air, clean hands, proper food. In schools, particularly, the posters will make a number of subjects more interesting, for example

In Health Classes
For Art Work
For Notebooks
In Project Work
For Geography Classes

The ingenious teacher will devise many other uses. For instance, the Oriental posters may serve as models for enlarged blackboard drawings.

*Price 25 Cents a Set*

**AMERICAN MEDICAL ASSOCIATION**
**535 North Dearborn Street, Chicago**


## EVERY CHILD HAS RIGHT TO SCHOOL LIFE AND HEALTH

The rights of school children are formulated as follows by W. W. Carpenter of Peabody College for Teachers, writing in *Midland Schools*, the official organ of the Iowa State Teachers' Association. Every child has the right:

1. To attend school every day during the school term and go to school the same number of days in the year as every other child.
2. To be instructed by a trained teacher.
3. To go to school in a building free from fire hazard.
4. To attend school in a building that is in a healthful environment, is scientifically built and equipped and is kept sanitary.
5. To be transported to school if the travel distance is too great.
6. To succeed in school.

In addition, every child has the right to attend a school:

1. Where medical and dental inspection is available without charge.
2. Where organized play is considered a normal activity and is provided.
3. Where the love of home, the desire for its improvement and an appreciation for the beautiful and the good are taught.
4. Where cooperation in activities is encouraged.
5. Where appreciation of society, its struggles and victories is made clear, and its challenge to the future made personal.
6. Where the individual is trained for his life work.

## BOYS' WEEK OBSERVED APRIL 30-MAY 7

April 30 to May 7, 1932, is Boys' Week, an annual observance. In 1920, Boys' Week was originated by the Rotary Club in New York City. In 1931 this week was observed generally throughout the world. The objectives are stated definitely: to focus public attention on the boy as one of the world's greatest assets by making the nation think in terms of boyhood; to interest every one in boys, to interest boys in themselves and to emphasize fundamentals in character building for citizenship; to develop a community esprit de corps in the home, school, church and spare-time organizations that deal with boys; to advocate for every boy an equal chance to work out his destiny without the handicap of underprivilege or overprivilege. The program is sponsored by the National Boys' Week Committee for the United States.

## TREATING YOUNG CRIPPLE MAKES HIM ASSET TO COMMUNITY

Whatever affects the well being of an individual affects the well being of the state. Particularly is this true in caring for those physically handicapped. Civilization has come to realize that from an economic standpoint alone it is better to convert the crippled child from the status of a liability to that of an asset to society.

Charles G. Johnson, state treasurer of California, suggests the following solution for the problem. "Suppose it does cost four, five or six or more hundred dollars to put a crippled child on his feet so that he may become a self reliant, self supporting member of society. Then suppose the income of the parents of this crippled child is insufficient to make accessible the very best possible care, the most expertly trained physician and surgeon. Because he is not a menace to society, his case goes on unnoted until he is no longer a potential cripple, but a real, social, industrial and economic liability—his guardians gone, a community responsibility for ten, twenty or fifty years in county or state institutions at county expense—ranging from ten to fifty times the possible cost of early correction," whereas early corrective measures might have produced "a taxpayer instead of a tax consumer."

## CREED FOR TEACHERS

I believe in a yearly health examination.
I believe in prompt attention to physical defects found.
I believe in following carefully the personal health directions given at the time of examination.
I believe in embodying and radiating health.
I believe in practicing daily health habits.
I believe in being an example in personal hygiene.
I believe in making health contagious by example and enthusiasm.
I believe a healthy vital teacher is the index of her class.
I believe a teacher is largely responsible for the physical, mental and moral health of her pupils.
I believe in acquiring and in endeavoring to give to others the health point of view.

—*Bulletin of New York State Department of Education.*

Children in New York City have been found playing more than 150 games in the streets, the children's bureau of that city reports.


**LOST handkerchiefs are expensive**

**Save money!...give children KLEENEX**

***Disposable Tissues***

**instead of handkerchiefs**

YOU know how children lose and ruin handkerchiefs. It's good business to give them Kleenex instead. A whole package costs very little and saves many lost handkerchiefs.

Several of these soft, super-absorbent tissues now cost even less than the laundering of a single handkerchief! Or, if you do your laundering at home, Kleenex frees you from that disagreeable job—a task all women loathe.

***Much more healthful***

If a soiled handkerchief is unpleasant to wash, think how dangerous it is to *use!* Soiled, germ-laden... any doctor will tell you to keep it away from children's faces. The only *safe* handkerchief is one you can use and destroy. You use Kleenex just once, then destroy. Germs are destroyed, too.

Use Kleenex in beauty care, too. For removing cleansing cream, it prevents any risk of leaving bits of oil and dirt in the pores. Mothers find it saves clothes when giving children cod liver oil or medicines, when applying ointments. Every drug, dry goods and department store sells Kleenex.

**Regular 50c size now 35c**

**KLEENEX** *disposable* TISSUES

***Germ-filled handkerchiefs are a menace to society!***

KLEENEX COMPANY,
Lake Michigan Building,
Chicago, Ill.
Please send sample packet of Kleenex. HY-6

*Name* .....

*Address* .....

*City* ..... *State* .....

*(In Canada, address 330 Bay St., Toronto, Ontario)*

# IRRITABLE AND RESTLESS?

# *YOU CAN COME BACK!*

# TAKE THE TWO-A-DAY WAY

WHEN you are jumpy and irritable, when you have difficulty in getting to sleep—take the two-a-day way! Drink a cold, delicious Borden's Malted Milk at the fountain, to build your energy. Drink it warm at bedtime, to settle your nerves and promote sleep,

Why will Borden's help you? Here's the reason . . . Tests conducted by a great University prove that Borden's is rich in vitamins A, B and G—rich in the identical vitamins and elements that so definitely promote energy and sound nerves!

So drink Borden's at the fountain. Buy the home package, too. Drink Borden's warm, made with milk, at bedtime as an aid to sleep. Try the two-a-day way for two weeks and see how much better you feel. Send 10c with the coupon below for liberal trial package and valuable booklet.

© 1932, B. CO.

*Borden's Richer Malted Milk*

Borden's Richer Malted Milk

GO TO THE FOUNTAIN
THAT DISPLAYS THE BORDEN DIAMOND

BORDEN ASSOCIATED COMPANIES — Borden's — 1857

THE BORDEN COMPANY,
Dept. 19-A,
350 Madison Ave., New York.

Enclosed is 10c (stamps or coin) for which please send me 3-serving sample of Borden's Malted Milk and booklet.

*Name*_____

*Address*_____

*City*_____ *State*_____


## JUSTIFICATION OF LIFE LIES IN ENRICHING EXPERIENCES

The justification of life lies in the enrichment of its values by conscious activity, Robert Morss Lovett, professor of English at the University of Chicago, asserted as he addressed students of Northwestern University recently.

This remark was in answer to the question, "Is life worth living?" Professor Lovett is not the first to answer this question, which became more and more frequently repeated toward the close of the nineteenth century. The nineteenth century, the lecturer stated, was rich in values of knowing and social action but poor in values of feeling.

It is the opinion of W. H. Mallock that life is only justified by the hope of immortality. Joseph Wood Krutch, who cannot invoke supernatural sanctions, says that life is not worth living. John Dewey declares that we live because it is a part of human nature to live. Professor Lovett broadens his point of view in the following quotation:

"The justification of life, however, lies in our enrichment of its values, by conscious activity. Experience is the material with which man works to enhance the life which he regards as a burden or a boon, according to his individual temperament and the temper of his age. From his own nature and the nature of the conditions in which he finds himself, he has evolved certain activities round which his conscious efforts to enrich life chiefly center. Some of these are education, art, appreciation of art and nature, human relations, whether personal or socialized, and religion."

---

## TO KEEP NORMAL WEIGHT IS SENSIBLE

"Fat persons may be able to smile more jovially through life but the thin person has a better chance to hang on longer." This statement is made by the State Medical Society of Wisconsin. The percentage of overweight persons who die from heart disease, nephritis, arterial diseases, cerebral hemorrhage and cancer is much greater than that of normal persons. Overweight persons are also more susceptible to sclerosis of the liver, influenza, paralysis and angina pectoris.

This may give the slim underweights something to smile over, but their faces will begin to lengthen when they learn that tuberculosis and pneumonia have a grip on them. The maintenance of normal weight shows ideal sagacity.